

**THE  
PREDICTION OF OVERT BEHAVIOR  
THROUGH THE USE OF  
PROJECTIVE TECHNIQUES**

*Publication Number 415*

**AMERICAN LECTURE SERIES®**

*A Monograph in*  
**AMERICAN LECTURES IN PSYCHOLOGY**

*Edited by*

**MOLLY HARROWER, Ph.D**

*Professor of Research in Clinical Psychology*

*Department of Psychiatry*

*Temple University School of Medicine*

*Philadelphia, Pennsylvania*

THE  
PREDICTION OF OVERT BEHAVIOR  
THROUGH THE USE OF  
PROJECTIVE TECHNIQUES

---

By

**ARTHUR C. CARR, Ph.D.**

*Associate Professor of Medical Psychology*

*College of Physicians and Surgeons, Columbia University*  
*Associate Clinical Psychologist, New York State Psychiatric Institute*  
*New York, New York*

**BERTRAM R. FORER, Ph.D.**

*Associate Clinical Professor*  
*University of California at Los Angeles*  
*Consultant, Veterans Administration*  
*Mental Hygiene Clinic*  
*Los Angeles, California*

**WILLIAM E. HENRY, Ph.D.**

*Professor of Psychology and*  
*Human Development*  
*University of Chicago*  
*Chicago, Illinois*

**EVELYN HOOKER, Ph.D.**

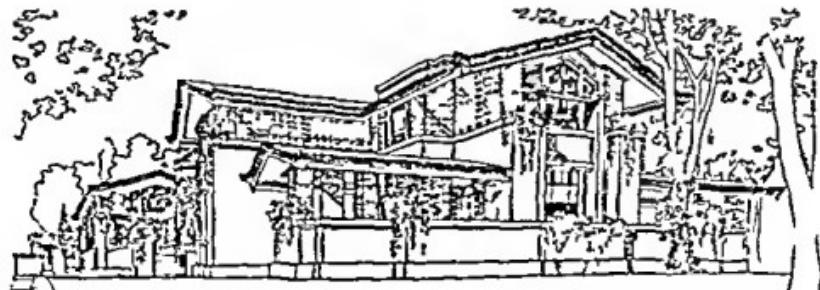
*Research Associate in Psychology*  
*University of California at Los Angeles*  
*Los Angeles, California*

**MAX L. HUTT**

*Professor of Psychology*  
*Department of Psychology*  
*University of Michigan*  
*Ann Arbor, Michigan*

**ZYGMUNT A. PIOTROWSKI, Ph.D.**

*Professor of Psychology*  
*Department of Psychiatry*  
*Jefferson Medical College of Philadelphia*  
*Philadelphia, Pennsylvania*



**CHARLES C THOMAS • PUBLISHER**

*Springfield • Illinois • U.S.A.*

CHARLES C THOMAS • PUBLISHER  
BANNERSTONE HOUSE  
301 327 East Lawrence Avenue, Springfield, Illinois, U S A

*Published simultaneously in the British Commonwealth of Nations by*  
BLACKWELL SCIENTIFIC PUBLICATIONS, LTD., OXFORD, ENGLAND

*Published simultaneously in Canada by*  
THE RYERSON PRESS, TORONTO

This book is protected by copyright. No part of it may be reproduced in any manner without written permission from the publisher.

© 1960, by CHARLES C THOMAS • PUBLISHER

Library of Congress Catalog Card Number 60 11261

With THOMAS BOOKS careful attention is given to all details of manufacturing and design. It is the Publisher's desire to present books that are satisfactory as to their physical qualities and artistic possibilities and appropriate for their particular use. THOMAS BOOKS will be true to those laws of quality that assure a good name and good will.

## **CONTRIBUTORS**

### **ARTHUR C. CARR, PH.D.**

*Associate Professor of Medical Psychology, College of Physicians and Surgeons, Columbia University; Associate Clinical Psychologist, New York State Psychiatric Institute, New York, N.Y.*

### **BERTRAM R. FORER, PH.D.**

*Associate Clinical Professor, University of California at Los Angeles, Consultant, V.A. Mental Hygiene Clinic, Los Angeles, California*

### **WILLIAM E. HENRY, PH.D.**

*Professor of Psychology and Human Development, University of Chicago, Chicago, Illinois*

### **EVELYN HOOKER, PH.D.**

*Research Associate in Psychology, University of California at Los Angeles, Los Angeles, California*

### **MAX L. HUTT**

*Professor of Psychology, Department of Psychology, University of Michigan, Ann Arbor, Michigan*

### **ZYGMUNT A. PIOTROWSKI, PH.D.**

*Professor of Psychology, Department of Psychiatry, Jefferson Medical College of Philadelphia, Philadelphia, Pennsylvania*

## FOREWORD

The reports in this monograph constitute the proceedings of a symposium presented at the Annual Convention of the American Psychological Association, in Cincinnati, Ohio, September, 1959. This symposium on "The Prediction of Overt Behavior Through the Use of Projective Techniques" was sponsored jointly by the Society for Projective Techniques and the Division of Clinical Psychology of the American Psychological Association. At the invitation of Dr. Gordon Derner, then President-elect of the Society for Projective Techniques, Dr. Arthur C. Carr assumed responsibility for organizing the symposium in terms of the choice of topic and structuring of the program.

In view of the intense interest expressed by many concerning this program, it appeared desirable to make the symposium proceedings available in permanent form. Whether approached as a study of the prediction of overt behavior, or as a guide to projective test interpretation, or as an elucidation of the possible etiology and psychodynamics of overt sexual psychopathology, this volume represents a contribution which it is believed will be of interest to students of human behavior.

## **ACKNOWLEDGMENTS**

**S**pecial appreciation is expressed to the numerous individuals who contributed to the success of the symposium presented herein. Dr. Lawrence C. Kolb, Director, New York State Psychiatric Institute, initiated the over-all project on divergent sexual behavior in identical twins. Dr. Gordon Derner, President of the Society for Projective Techniques, gave special encouragement and support to this symposium. Invaluable assistance was also given by Dr. William N. Thetford and Dr. Helen Schucman. Devoted secretarial assistance by Mrs. Marion Sexton, Miss Carolyn Rosen, and Miss Patricia Fleming made it possible to meet the publication deadlines. Final indebtedness must be expressed to Dick and Tom for their voluntary participation in the project.

# CONTENTS

	<i>Page</i>
<i>Foreword</i>	vii
<i>Acknowledgments</i>	ix
<b>INTRODUCTION by Arthur C Carr, Ph D</b>	3
References	5
<b>SENTENCE COMPLETIONS by Bertram R Forer, Ph D</b>	6
Part I	6
Part II	10
References	15
Addendum	15
<b>THE THEMATIC APPERCEPTION TEST by William E Henry, Ph D</b>	18
Part I	18
Part II	21
References	25
Addendum	26
References	29
<b>THE REVISED BENDER GESTALT VISUAL MOTOR TEST</b>	
<i>by Max L Hutt</i>	30
Part I	30
Part II	34
References	42
Addendum	43
<b>THE RORSCHACH TEST by Zygmunt A Piotrowski Ph D</b>	56
References	65
Addendum	65
<b>DEVELOPMENTAL HISTORIES OF THE TWINS by Arthur C Carr Ph D</b>	68
Dick and Tom	68
Summary	77
<b>DISCUSSION by Evelyn Hooker, Ph D</b>	78
References	91
<b>APPENDIX—TEST PROTOCOLS</b>	93
Sentence Completion Test Initial Testing (1957)	94

Sentence Completion Test: Re-evaluation (1959) . . . . .	100
Thematic Apperception Test: Initial Testing (1957) . . . . .	106
Thematic Apperception Test: Re evaluation (1959) . . . . .	110
Rorschach Test: Initial Testing (1957) . . . . .	116
Rorschach Test: Re evaluation (1959) . . . . .	129
Bender-Gestalt Test . . . . .	150
Dick . . . . .	150
Initial Testing—1957 . . . . .	150
Recall . . . . .	151
Bender-Gestalt Test . . . . .	152
Tom . . . . .	152
Initial Testing—1957 . . . . .	152
Recall . . . . .	154
Bender-Gestalt Test . . . . .	156
Dick . . . . .	156
Re-evaluation—1959 . . . . .	156
Modifications . . . . .	158
Associations . . . . .	159
Bender-Gestalt Test . . . . .	160
Tom . . . . .	160
Re-evaluation—1959 . . . . .	160
Modifications . . . . .	162
Associations . . . . .	164
Draw-A-Person . . . . .	166
Dick . . . . .	166
Initial Testing—1957 . . . . .	166
Draw-A-Person . . . . .	168
Tom . . . . .	168
Initial Testing—1957 . . . . .	168
Draw-A-Person . . . . .	170
Dick . . . . .	170
Re-evaluation—1959 . . . . .	170
Draw-A-Person . . . . .	172
Tom . . . . .	172
Re-evaluation—1959 . . . . .	172
Index . . . . .	175

**THE  
PREDICTION OF OVERT BEHAVIOR  
THROUGH THE USE OF  
PROJECTIVE TECHNIQUES**

## INTRODUCTION

ARTHUR C. CARR, PH.D.

The purpose of the symposium published in this volume was to assay the extent of present knowledge of the major projective techniques when used for predicting overt behavior. Participants included Bertram Forer (*Sentence Completions*), William Henry (*TAT*), Max Hutt (*Bender-Gestalt test*), and Zygmunt Piątrowski (*the Rorschach test*), with Evelyn Hooker as discussant.

The problem of predicting overt behavior from projective techniques is a challenging one, and one which is not always handled successfully. Although clinical psychologists sometimes appear especially gifted in the art of predicting specific overt symptoms and behavioral reactions from projective test responses, the research evidence is much less impressive.

There is perhaps no study more relevant to this problem than that of Evelyn Hooker (2-4) on the adjustment of the male homosexual. In one of the most significant psychological studies of the past decade, she has shown that experts could not distinguish Rorschach protocols of homosexuals from those of a carefully matched heterosexual group. Her findings challenge many of our assumptions regarding the utilization of projective techniques, as well as our conceptions of adjustment and normality. The results of this study should not be disregarded, in view of the importance which prediction plays in our science. In view of such provocative research findings, it is imperative that we formulate *more precisely the underlying principles for inferring overt behavior from projective test responses*.

At the present stage of our knowledge, the validity of projective tests rests upon relating the inferences derived from them to numerous data concerning the patient's dynamic functioning at various levels of personality organization. One of the major problems in the use of any projective technique is to relate a systematic theory of personality to a definitive evaluation of the

patient's levels of integration, insofar as these are revealed by any given technique. It is for this reason that no single available test can replace a well chosen test battery (1). An awareness of the limitations of existing projective techniques, however, should not make us doubt their present and potential contribution. Instead, it should encourage us to make more explicit the theoretical constructs and operations which have contributed to their unique status in clinical psychology.

In structuring this symposium, each participant was asked to consider a particular projective technique from the standpoint of the level of personality functioning which it presumably taps, giving special emphasis to the prediction of overt behavior. It was suggested that, where possible, an attempt be made to formulate principles and general rules of interpretation useful for this purpose, making explicit their underlying assumptions. Needless to say, this posed a formidable task for our participants.

To provide a basis for common illustrative material, test protocols on a pair of identical twins were made available to our participants (Appendix). One twin, Dick, has been consistently overtly homosexual for many years. His brother, Tom, has been consistently overtly heterosexual, apart from one or possibly two adolescent homosexual episodes. Test protocols were obtained on both twins before and after Tom's psychoanalysis, in 1957 and 1959 respectively.\*

The projective test data on these twenty nine year old brothers appeared especially appropriate for consideration because in spite of their divergent overt psychopathology, the underlying motivational patterns are often convergent. These patterns are sometimes expressed in strikingly identical projective test content with the expression of pathological and idiosyncratic elements which often appear more similar than dissimilar. This finding is consistent with the test records available on a limited number of pairs of other identical twins also having diverse overt

\*These records were gathered as part of a study on divergent psychopathology in identical twins at the New York State Psychiatric Institute. Participants in this study include Dr Lawrence C Kolb, Dr John A Rainer and Dr Alvin Mesnikoff. See "Homosexuality and Heterosexuality in Identical Twins" (Rainer, Mesnikoff, Kolb & Carr) *Psychosomatic Medicine*, 22 No 4 July/August 1960.

psychopathology. It is, however, in contrast to the results of the classic study by Troup (5) in which experts had difficulty in matching Rorschach protocols of identical normal twin children.

Of further theoretical and practical interest, and consistent with the general findings of Hooker, it appeared extremely difficult to predict the twin's overt psychosexual adjustment by means of the usual test criteria. Thus, these test protocols appeared ideal for purposes of the symposium.

Each of the participants in this symposium has made significant contributions to projective test interpretation and to the science of psychology. It is a pleasure to introduce this distinguished group.

### REFERENCES

1. Carr, A. C.: The psychodiagnostic test battery: rationale and methodology. In D. Brower and L. E. Abt (Eds.), *Progress in Clinical Psychology*, Vol. III. New York, Grune & Stratton, 1958.
2. Hooker, E.: A preliminary analysis of group behavior of homosexuals. *J. Psychol.*, 42:217-225, 1956.
3. Hooker, E.: The adjustment of the male overt homosexual. *J. proj. Tech.*, 21:18-31, 1957.
4. Hooker, E.: Male homosexuality in the Rorschach. *J. proj. Tech.*, 22:33-54, 1958.
5. Troup, E.: A comparative study by means of the Rorschach method of personality development in twenty pairs of identical twins. *Genet. Psychol. Monogr.*, 20:461-556, 1938

# SENTENCE COMPLETIONS

BERTRAM R. FORER, PH.D.

## PART I

The prediction of behavior by means of psychological tests necessitates clarification of what is to be predicted. The tools, operations and methods of prediction must be geared to the nature of the predictive task. Let us, therefore, attempt to delineate kinds of predictive tasks and to consider what is involved in accomplishing them. Here are several possibilities:

1. Which of several possible qualitatively different acts will occur in a specified situation? Example: If a person is knocked down by someone, does he fight, cry, run, hallucinate? Let us call this *response* prediction.
2. How much of a given psychological something will be displayed in a specified situation? Example: When he felt angry, how intense was his anger, varying from feeble protest to homicide? Let us call this *intensitive* prediction.
3. In which situations will a given act be performed to at least some minimum degree? This is *situational* prediction.
4. How much instigation or environmental pressure is necessary to evoke a response of a specified nature or intensity, such as homosexual fellatio? This might be called *threshold* prediction.

These four predictive tasks are concerned with behavioral specificities and with situational determinants of behavior. We might think of these tasks as *extrinsic* predictions in that they involve qualitative and/or quantitative details of behavior which are objectively correlated with situational facts. The psychological substance which mediates the correlation can often be disregarded and the predictive method can consist entirely of an empirically derived regression equation in some instances or a clinical inference in others.

Suppose, now, that we choose to disregard concrete behavior and specific reality situations and turn our attention to the psycho-

logical substance: how the individual deals, may deal or has dealt with the myriad situations, internal and external, to which he is exposed. We might, then, ask such questions as these:

1. What kinds of situations or patterns of relationships characterize his way of life? What might his life be like in the future? Will he be homosexual or heterosexual; which vocation will he choose?

2. What patterns of conflicts, attitudes, aptitudes, motives, psychodynamics, defenses and traits characterize him? What is his diagnosis?

These questions shift the emphasis away from the outer world and specific behaviors toward abstract conceptualizations of behavior and to the relatively enduring intrapsychic system. The data are essentially endogenous processes and our task might be conceived of as *intrinsic prediction*.

The two kinds of prediction, intrinsic and extrinsic, differ in the kinds of behavior, degree of generality or specificity, concreteness or abstractness, and in the relative importance of endogenous and exogenous factors that determine it. In terms of the operations involved, they differ in the nature of the stimuli or tests and in the amount of clinical inference employed.

The psychological data from which predictions and clinical inferences are made have their source in the interaction of exogenous and endogenous processes. The exogenous factors with which we are dealing are projective test stimuli. And we find that for any person the data vary with the stimuli, often appearing to be contradictory. Contradictory responses are taken to represent different levels of psychological functioning or organization. We assume that these responses represent alternative endogenous inclinations to action and that there exist both situational and other psychological functions that exercise a modulating, redirecting, selecting or otherwise modifying role. At this point we might suggest that accurate prediction requires a complete assessment of all of the inclinations and controlling mechanisms and all of the situational possibilities as well. We need to know how the person deals with all impulses and all situations. Our method of discovering this information is to control and manipulate the stimuli to which responses are given. The statement, "sucking on a breast," will

have different predictive implications depending on whether it is given in response to Rorschach card 10, TAT card 11, or sentence stem "I used to daydream about . . ." (2).

One of the differences in significance stems from the amount of stimulus definition. Implicitly we assume that less structured, more ambiguous, stimuli instigate responses representative of less conscious, more abstract, covert and deep, or latent behavior potentials, less probable of direct expression than those which occur in response to more structured items. The less the stimulus controls the details of a response, the more endogenous the process and the less accurate will be the *extrinsic* prediction from it. The negative findings of many studies of prediction from projective data may represent a failure to distinguish between *extrinsic* prediction and *intrinsic* prediction and to recognize the difference in psychic levels involved. Prediction from responses to structured stimuli about responses to unstructured stimuli is dubious in the same way as prediction from unstructured situations to structured ones. These cross-level predictions violate the concept that different levels represent different forms, intensities, thresholds and situational determinants of behavior and carry different probabilities of expression of a particular need. Successive levels show not continuity but discontinuity.

Forer (3) and others have suggested that the manifestation of a trait, wish, activity or affect in one test or at one psychological level carries with it little or no indication that it will occur at another psychological level or in a particular situation. The conclusion which we face is that projective test stimuli and social situations are not ordinarily isomorphic.

Since sentence stems are not equivalent stimuli to social situations, but may be more nearly so than inkblots, we are forced, in order to make *extrinsic* predictions, to take the following steps:

1. To approximate stimulus equivalence by designing stimuli that are likely on *a priori* or empirical grounds to overlap in stimulus properties those situations to which we wish to predict.
2. To provide a sample of stimulus-response data in the relevant areas of prediction.

The sentence completion test employed in this case was designed to provide stimulus samples in specialized areas of life that

are of predictive interest in most clinical situations (1). The items were oriented as much toward intrinsic as toward extrinsic prediction. Insofar as they were not tailor-made for these individual cases, the sentences have limitations for the present exposition. The fundamental concept behind this form of the test is as follows: If we assign affects, wishes, and actions to the ego, we can get some idea of the kinds of situation which the ego can accept as justification for them. If we exert external pressure such as criticism or failure on the ego, we can observe the ways in which the ego contends with it as a kind of work sample. A form of item which ought to be in the test, and is not, is of the nature of assigning a wish, act or affect to the ego to observe how intensely and in which forms it will be expressed. Examples: "Whenever I am angry, I . . ." and "When he was sexually aroused he . . .".

Two major kinds of scoring have been described for sentence completion protocols. Rotter et al (6) sets up a scoring system for estimating adjustment and obtains a single score which can be compared with empirical norms. Rohde's (5) method provides a profile of needs and other variables expressed quantitatively. My feeling is that such quantification may have psychometric value but has limited clinical utility because it fails to disclose the nature of the more complex integrative ego functions which juggle the probabilities and forms of action. Our orientation is to consider each item as a potentiality for action and to estimate relative probabilities by means of clinical comparison of the various items on dimensions such as the following:

1. *Situational determinants of specific affects, wishes and actions.* Inferences on this dimension include situational generality or specificity of the response. Example: Is the patient likely to be overtly homosexual in any situation, when intoxicated only, on his or her initiative, in military situations. Preferred and rejected objects are also important here.

2. *Thresholds.* How much stimulus pressure versus endogenous inclination is required for homosexual behavior? Still more specificity is called for. Can we estimate how much social pressure would be required in a given situation such as an evening party for the acting-out of fellatio wishes? We can set up a hierarchy of

situations which would define successively lower thresholds for general homosexual behavior.

a. When forcibly mastered by several men.

b. When intoxicated and in the Aleutian islands for two years.

c. Seduced in a military installation.

d. Active seeking of homosexual contact under rare circumstances.

e. Active and frequent homosexual cruising when sober.

The present test does not provide anything like isomorphic stimuli for such questions, but some weak guesses can be made from other items which contribute to a picture of the endogenous system. However, we must anticipate that with limited knowledge of the hierarchic structure we may be 180 degrees wrong in making extrinsic predictions from this source.

3. Forms Can we set up some kind of probability hierarchy of forms of sexual behavior characteristic of our patients? We might consider here the psychosexual levels, active and passive roles, sex, age and size of objects and the like.

4. Intensity In the area of homosexuality we might find predictions enhanced by specifying frequency, exclusiveness of sex objects, and endogenous independence from situations. In such areas as aggression we can more clearly specify magnitudes.

## PART II

The sentence completion test was administered to twin brothers and re administered two years later after the heterosexual twin had had psychotherapy. I have disregarded the retest protocols. Examining the initial sentence completions of the twins might enable us to make some such tentative inferences and predictions as these: Dick shows a higher threshold than Tom for accepting wishes for dependency and emotional closeness. Nine items (Nos. 2, 7, 17, 29, 37, 52, 74, 83, 98) ask for expressions of wishes \* Tom expresses a need for love and relationships on three (Nos. 52, 74, 83). Dick expresses less need (No. 74), but emphasizes possessions (Nos.

\*1 A copy of the sentence completion check sheet is appended to furnish an outline for the clinical areas approached by this form of the test. Different check sheets were developed for the children's and the vocational forms.

7, 52, 83). A characteristic difference between the twins appears in item No. 12, "I was most depressed when . . ." Dick says "I didn't get a bigger bonus"; Tom says, "I feel I was unloved." Inference: Dick avoids enduring relationships. Prediction: Dick is likely to cruise homosexually rather than establish a continuous relationship. If someone wished to become close to him, Dick would find fault and reject him. While Tom suffers with his awareness of a need to be loved, Dick sneeringly rejects it most of the time. Both show evidence of having experienced emotional rejection. In the items describing "reactions to rejection," Dick rejects the objects and the need, while Tom feels depressed (Nos. 14, 46, 82). On item No. 14, "When she turned me down, I . . .," Tom feels depressed and Dick says, "the hell with it."

Both twins have favorable things to say about sex (Nos. 18, 28, 40, 61), but the evidence is insufficient to say that either has indulged himself in it. Tom expresses guilt about real or fancied relations with older women (No. 24), suggestive of a "healthier" solution of his struggles than that of Dick who rejects love and marriage (Nos. 78, 92). Prediction: Tom is likely to seek women's companionship and a sexual relationship despite internal inhibitions; his sex may be counterphobic and guilt-laden. If a woman is warm and sympathetic, Tom is likely to seek a sexual relationship. Dick on the other hand is likely to identify in a hostile way with women, compete with them and reject them sexually as well as affectionally. Dick's sexual interest is narcissistic, involves rejecting closeness with objects, is more likely phobic with women. He has a lower threshold for acting-out, and for expressing his own wishes, partly to deny feelings, even though he may experience subsequent guilt. Dick ridicules conventions (No. 59) and shows a lower threshold for the expression of angry rebellious feelings. Six items are structured *a priori* to find the situational determinants of aggression (Nos. 19, 34, 55, 75, 86, 89). Tom requires more provocation than Dick does. Dick gives three rather facetious or trivial responses: someone not soaking dishes after a meal (No. 19), someone not finishing the floors of his home (No. 34), a woman flushing a baby down the toilet (No. 89). Tom omits one aggression item (No. 75), his only omission, hence suggestive of a struggle against anger. Dick's responses suggest much endogenous anger (No. 86) which

**PREDICTION OF OVERT BEHAVIOR**  
**SENTENCE COMPLETION CHECK SHEET**

Name \_\_\_\_\_ Age \_\_\_\_\_ Sex \_\_\_\_\_ Marital \_\_\_\_\_ Education \_\_\_\_\_ Date \_\_\_\_\_

		Attitude toward:										Characteristics of:																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
		A. INTERPERSONAL FIGURES					FATHER					MOTHER					MALES					FEMALES					PEOPLE					AUTHORITY					B. DOMINANT DRIVES																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																														
Name	Age	Unclear	Denial	Omission	Achievement	Anxiety	Avoidance	Compulence	Dependency	Fear	Guilt	Hostility	Insecurity	Love	Possessive	Rejection	Security	Accepting	Cobidile	Demanding	Distant	Dominant	Hostile	Ineffectual	Protecting	Rejecting	Undependable	Intellect	Love	Potency	Prestige	Security	Sex	Social Ideals																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																	
		9	16	23	30	37	44	51	58	65	72	79	86	93	100	107	114	121	128	135	142	149	156	163	170	177	184	191	198	205	212	219	226	233	240	247	254	261	268	275	282	289	296	303	310	317	324	331	338	345	352	359	366	373	380	387	394	401	408	415	422	429	436	443	450	457	464	471	478	485	492	499	506	513	520	527	534	541	548	555	562	569	576	583	590	597	604	611	618	625	632	639	646	653	660	667	674	681	688	695	702	709	716	723	730	737	744	751	758	765	772	779	786	793	800	807	814	821	828	835	842	849	856	863	870	877	884	891	898	905	912	919	926	933	940	947	954	961	968	975	982	989	996	1003	1010	1017	1024	1031	1038	1045	1052	1059	1066	1073	1080	1087	1094	1101	1108	1115	1122	1129	1136	1143	1150	1157	1164	1171	1178	1185	1192	1199	1206	1213	1220	1227	1234	1241	1248	1255	1262	1269	1276	1283	1290	1297	1304	1311	1318	1325	1332	1339	1346	1353	1360	1367	1374	1381	1388	1395	1402	1409	1416	1423	1430	1437	1444	1451	1458	1465	1472	1479	1486	1493	1500	1507	1514	1521	1528	1535	1542	1549	1556	1563	1570	1577	1584	1591	1598	1605	1612	1619	1626	1633	1640	1647	1654	1661	1668	1675	1682	1689	1696	1703	1710	1717	1724	1731	1738	1745	1752	1759	1766	1773	1780	1787	1794	1801	1808	1815	1822	1829	1836	1843	1850	1857	1864	1871	1878	1885	1892	1899	1906	1913	1920	1927	1934	1941	1948	1955	1962	1969	1976	1983	1990	1997	2004	2011	2018	2025	2032	2039	2046	2053	2060	2067	2074	2081	2088	2095	2102	2109	2116	2123	2130	2137	2144	2151	2158	2165	2172	2179	2186	2193	2200	2207	2214	2221	2228	2235	2242	2249	2256	2263	2270	2277	2284	2291	2298	2305	2312	2319	2326	2333	2340	2347	2354	2361	2368	2375	2382	2389	2396	2403	2410	2417	2424	2431	2438	2445	2452	2459	2466	2473	2480	2487	2494	2501	2508	2515	2522	2529	2536	2543	2550	2557	2564	2571	2578	2585	2592	2599	2606	2613	2620	2627	2634	2641	2648	2655	2662	2669	2676	2683	2690	2697	2704	2711	2718	2725	2732	2739	2746	2753	2760	2767	2774	2781	2788	2795	2802	2809	2816	2823	2830	2837	2844	2851	2858	2865	2872	2879	2886	2893	2900	2907	2914	2921	2928	2935	2942	2949	2956	2963	2970	2977	2984	2991	2998	3005	3012	3019	3026	3033	3040	3047	3054	3061	3068	3075	3082	3089	3096	3103	3110	3117	3124	3131	3138	3145	3152	3159	3166	3173	3180	3187	3194	3201	3208	3215	3222	3229	3236	3243	3250	3257	3264	3271	3278	3285	3292	3299	3306	3313	3320	3327	3334	3341	3348	3355	3362	3369	3376	3383	3390	3397	3404	3411	3418	3425	3432	3439	3446	3453	3460	3467	3474	3481	3488	3495	3502	3509	3516	3523	3530	3537	3544	3551	3558	3565	3572	3579	3586	3593	3600	3607	3614	3621	3628	3635	3642	3649	3656	3663	3670	3677	3684	3691	3698	3705	3712	3719	3726	3733	3740	3747	3754	3761	3768	3775	3782	3789	3796	3803	3810	3817	3824	3831	3838	3845	3852	3859	3866	3873	3880	3887	3894	3901	3908	3915	3922	3929	3936	3943	3950	3957	3964	3971	3978	3985	3992	4000	4007	4014	4021	4028	4035	4042	4049	4056	4063	4070	4077	4084	4091	4098	4105	4112	4119	4126	4133	4140	4147	4154	4161	4168	4175	4182	4189	4196	4203	4210	4217	4224	4231	4238	4245	4252	4259	4266	4273	4280	4287	4294	4301	4308	4315	4322	4329	4336	4343	4350	4357	4364	4371	4378	4385	4392	4399	4406	4413	4420	4427	4434	4441	4448	4455	4462	4469	4476	4483	4490	4497	4504	4511	4518	4525	4532	4539	4546	4553	4560	4567	4574	4581	4588	4595	4602	4609	4616	4623	4630	4637	4644	4651	4658	4665	4672	4679	4686	4693	4700	4707	4714	4721	4728	4735	4742	4749	4756	4763	4770	4777	4784	4791	4798	4805	4812	4819	4826	4833	4840	4847	4854	4861	4868	4875	4882	4889	4896	4903	4910	4917	4924	4931	4938	4945	4952	4959	4966	4973	4980	4987	4994	5001	5008	5015	5022	5029	5036	5043	5050	5057	5064	5071	5078	5085	5092	5099	5106	5113	5120	5127	5134	5141	5148	5155	5162	5169	5176	5183	5190	5197	5204	5211	5218	5225	5232	5239	5246	5253	5260	5267	5274	5281	5288	5295	5302	5309	5316	5323	5330	5337	5344	5351	5358	5365	5372	5379	5386	5393	5400	5407	5414	5421	5428	5435	5442	5449	5456	5463	5470	5477	5484	5491	5498	5505	5512	5519	5526	5533	5540	5547	5554	5561	5568	5575	5582	5589	5596	5603	5610	5617	5624	5631	5638	5645	5652	5659	5666	5673	5680	5687	5694	5701	5708	5715	5722	5729	5736	5743	5750	5757	5764	5771	5778	5785	5792	5799	5806	5813	5820	5827	5834	5841	5848	5855	5862	5869	5876	5883	5890	5897	5904	5911	5918	5925	5932	5939	5946	5953	5960	5967	5974	5981	5988	5995	6002	6009	6016	6023	6030	6037	6044	6051	6058	6065	6072	6079	6086	6093	6100	6107	6114	6121	6128	6135	6142	6149	6156	6163	6170	6177	6184	6191	6198	6205	6212	6219	6226	6233	6240	6247	6254	6261	6268	6275	6282	6289	6296	6303	6310	6317	6324	6331	6338	6345	6352	6359	6366	6373	6380	6387	6394	6401	6408	6415	6422	6429	6436	6443	6450	6457	6464	6471	6478	6485	6492	6499	6506	6513	6520	6527	6534	6541	6548	6555	6562	6569	6576	6583	6590	6597	6604	6611	6618	6625	6632	6639	6646	6653	6660	6667	6674	6681	6688	6695	6702	6709	6716	6723	6730	6737	6744	6751	6758	6765	6772	6779	6786	6793	6800	6807	6814	6821	6828	6835	6842	6849	6856	6863	6870	6877	6884	6891	6898	6905	6912	6919	6926	6933	6940	6947	6954	6961	6968	6975	6982	6989	6996	7003	7010	7017	7024	7031	7038	7045	7052	7059	7066	7073	7080	7087	7094	7101	7108	7115	7122	7129	7136	7143	7150	7157	7164	7171	7178	7185	7192	7199	7206	7213	7220	7227	7234	7241	7248	7255	7262	7269	7276	7283	7290	7297	7304	7311	7318	7325	7332	7339	7346	7353	7360	7367	7374	7381	7388	7395	7402	7409	7416	7423	7430	7437	7444	7451	7458	7465	7472	7479	7486	7493	7499	7506	7513	7520	7527	7534	7541	7548	7555	7562	7569	7576	7583	7590	7597	7604	7611	7618	7625	7632	7639	7646	7653	7660	7667	7674	7681	7688	7695	7702	7709	7716	7723	7730	7737	7744	7751	7758	7765	7772	7779	7786	7793	7799	7806	7813	7820	7827	7834	7841	7848	7855	7862	7869	7876	7883	7890	7897	7904	7911	7918	7925	7932	7939	7946	7953	7960	7967	7974	7981	7988	7995	8002	8009	8016	8023	8030	8037	8044	8051	8058	8065	8072	8079	8086	8093	8099	8106	8113	8120	8127	8134	8141	8148	8155	8162	8169	8176	8183	8190	8197	8204	8211	8218	8225	8232	8239	8246	8253	8260	8267	8274	8281	8288	8295	8302	8309	8316	8323	8330	8337	8344	8351	8358	8365	8372	8379	8386	8393	8399	8406	8413

## PREDICTION OF OVERT BEHAVIOR

E MOODS

F AGGRESSION : Intrapsychic \_\_\_ Hostile \_\_\_ Aggression \_\_\_ Demol.

G. AFFECTIVE LEVEL (No. of affectively toned responses) \_\_\_\_\_

he accepts rather easily. Prediction: In a variety of situations Dick will express anger and hostility of moderate intensity. Tom is likely to hold back his anger, may at times explode and regret it. In addition Dick blames situational factors for his failures and frustrations (Nos. 6, 27, 65), whereas Tom blames himself more often. The avoidance of responsibility which characterizes Dick's responses lends support to the prediction that his threshold for anger and other forms of acting-out is lower than Tom's.

We predicted from the protocol that Dick was more likely to act-out homosexually, in a greater variety of circumstances, with less situational provocation and with less concern about the nature and welfare of the object than Tom might do. We would not predict that Tom might not have homosexual impulses or never act them out. But his threshold for such activity is higher and at the most overt levels he will seek heterosexual objects.

We have been asked how first and third person sentence stems differ in their intrinsic and extrinsic predictive utility. Our hypothesis is that first person items are more closely congruent with extrinsic prediction and are thus more nearly isomorphic with social situations and public behavior, whereas third person items more likely evoke responses representing deeper psychic levels. With Hanfmann and Getzels (4), we look to the disparities between first-and third person responses for indications of relationships among psychic levels and as cues to the modulating ego functions which are necessary for making extrinsic predictions.

As a crude demonstration we selected from twelve areas of the test pairs of first person (Nos. 6, 8, 12, 14, 19, 24, 25, 31, 42, 52, 53, 92) and third person (Nos. 3, 4, 5, 27, 51, 55, 56, 61, 62, 78, 83, 100) items. Our impression was that there were greater differences between the twins on the first person than on the third person items. We take this to mean that although the twins may have similarities in their inner problems and motives and dynamics, the top-level ego controls of behavior differ considerably. Furthermore, Tom manifests greater differences between his first and third person responses than Dick does. We think that this reflects Tom's greater sensitivity and responsivity to situational factors, his greater intrapsychic conflict and his greater differentiation between adjacent psychological levels. His overt behavior ought to be easier to

predict extrinsically. Dick's relative independence from situational determinants suggests deeply entrenched character defenses, slower therapeutic change, but greater intrinsic predictability.

This brief and ill-documented illustration can give only a glimpse into some of the factors operating in the prediction of behavior from the sentence completion test. We first tried to clarify the nature of the predictive problem. We then set up a sample predicting situation by assigning the ego varied test tasks so that we could observe its ways of dealing with internal and external stimuli, its thresholds for acceptance of various acts, affects and wishes, in order to make relatively direct predictions from some items modified by evidence regarding the probabilities and circumstances of concrete behavior. By controlling the stimuli in a fairly structured test, we may have obtained some basis for extrapolating from this stimulus-response situation to others.

## REFERENCES

1. Forer, B. R.: A structured sentence completion test. *J. proj. Tech.*, 14:15-30, 1950. (Distrib. by Western Psychological Services.)
2. Forer, B. R.: The latency of latent schizophrenia. *J. proj. Tech.*, 14:297-302, 1950.
3. Forer, B. R.: Research with projective techniques, some trends *J. proj. Tech.*, 21:358-361, 1957.
4. Hansmann, E. and Getzels, J. W.: Studies on the sentence completion test. *J. proj. Tech.*, 17:280-294, 1953.
5. Rohde, A. R.: *The Sentence Completion Method* New York, Ronald, 1957.
6. Rotter, J. B., Rafferty, J. E. and Schachtzitz, E.: Validation of the Rotter Incomplete Sentences Blank for college screening *J. consult. Psychol.*, 13:348-366, 1949.

## ADDENDUM\*

Rereading my report in the light of what Dr. Hooker has said at the original presentation, I am forced to admit to preconceptions

\*Prior to publication of the symposium proceedings, participants were invited to make additional comments either in regard to Dr. Hooker's discussion or test data not previously interpreted

about the nature of homosexuality. In fact, the theoretical system which I employ in evaluating test data consists of a host of preconceptions. I doubt that any clinician can be truly objective about the data he processes without reducing the nature of his predictions to those of the order of simple restatements. It is at once the strength and the deficiency of the clinician that he brings something unique to his data: theoretical information and hypotheses, reorganization and extrapolations at the price of leaving the data and being idiosyncratically wrong. We trust that proof of his incorrectness enables him to amend his preconceptions and his methods of restructuring the data.

After this apologia, let us return to the twins.

At one point we implied, but did not state, that Dick seems better "adjusted." His apparently greater consistency, his relatively greater independence from stimuli suggests a fairly solid and structured endogenous system with fewer competing responses. If he were to be labelled clinically, we should consider him to have a character problem (alloplastic) in which struggles are resolved at a rather deep level. Tom seems to be openly neurotic (autoplasic), less comfortable and probably less effective. He had not, at least before therapy, achieved much in the way of a final resolution of his internal conflicts. He is somewhat at the mercy of stimuli rather than able to use them to his own ends as Dick is able to do.

We were also unclear in our original report about the differential predictability of the twins' behavior. Our most reasoned speculations at this point are these. Dick's relative autonomy from situational determinants of behavior, exemplified by the similarity of first and third person items and by the evidence of an alloplastic adjustment, suggest that his behavior is more predictable in an intrinsic fashion than Tom's. That is, knowledge of Dick's dynamics should permit us to make a fairly valid description of how he will order his life, even though we might have difficulty in predicting what he will do in many concrete situations.

Tom, on the other hand, is internally inconsistent, in conflict. Knowledge of his dynamics is less likely to enable intrinsic predictions of the same degree of clarity as Dick's. Yet, because of his responsibility to stimulus variation, we should be able to make more accurate extrinsic predictions from specific test data.

Speculating further, we should be intrigued to learn whether the Rorschach might be the best predictor of Dick's behavior and the sentence completions the best predictor of Tom's.

# THE THEMATIC APPERCEPTION TEST

WILLIAM E. HENRY, PH.D.

## PART I

**I**t might readily be assumed that there is no need to give consideration to the prediction of overt behavior from the various projective instruments. It is claimed, after all, that the realm of these instruments is that of the covert—that realm of feelings and assumptions of which the individual is at best dimly aware and which, in any case, he cannot verbalize directly.

Beyond the question of the validity of statements about overt behavior made from a projective technique, there occurs first the question of why one should bother. Why propose an intelligence quotient when a standardized intelligence test is available? Why describe the relationships to the parents when a direct interview on these matters with both the subject and the parents is possible?

I believe that there are answers to this first question which would, in varying degrees, make justifiable the devotion of a certain section of projective reports to predictions of overt behavior. I should like to comment briefly on only one of these answers. It is the answer that rests on the logic that behavior is dynamically motivated. We do assume that behavior bears some discoverable, if not direct, relation to underlying dynamics. And conversely, we do suppose that a particular pattern of inner dynamic relations has some greater tendency to be related to one pattern of overt behavior than to another. We are inclined to note the interconnection of the overt and the covert only after we have been informed of the overt—the "Aha" phenomenon of clinical psychology.

We are much less inclined to submit to examination our presumptions of these interconnections by stating them in advance. In case of error, we could of course point out that the

relations between underlying dynamics and overt behavior are obscure and wondrous and that further study is necessary. In this we would, of course, be quite correct. The availability of this excellent excuse, however, should encourage us to try our hand more regularly. Our predictive errors and our successes could teach us much, both about our own knowledge and blind spots, as well as about the heart of the matter, that web of connections between overt and covert, desire and action, manifest and latent.

The success of predictions of overt behavior is, however, greatly limited by our very scanty knowledge of what psychological issues will manifest themselves in which kind of behavior under what circumstances of correlative internal dynamics and of external pressures and sanctions.

In the instance of TAT stories, we have been repeatedly shown that the relation between personality events, described in terms of Murray-needs, and overt behavior is at best a weak one. Murray (5) and subsequently Sanford *et al.* (7), and other investigators have demonstrated correlations from zero to .40 between needs and some measure of overt behavior. The higher of these correlations, however, are found only when dealing with certain needs and not others, and then only with respect to certain kinds of overt behavior. Murray suggested correlations of .40 between the overt and covert for such needs as abasement, dominance, nurturance, passivity, dejection, but none for aggression and achievement, and a negative relation for sex. It has been suggested that the question of what needs are sanctioned or punished socially would be an integral factor in their overt expression. This seems unquestionably relevant, though as Lindzey (3) points out, the absence of a positive correlation for achievement in Murray's young American adults and the negative relation for sex certainly suggests that the relation is more complex than this.

Other investigations throw light on some elements of this complexity. Certainly the observations of McClelland, Atkinson, Clark, Lowell (4) and their colleagues on Achievement scores of persons in a wide variety of personal and social circumstances help clarify certain of these relations. Experimental studies focused upon aggression have shown that the more substantial relation-

# THE THEMATIC APPERCEPTION TEST

WILLIAM E. HENRY, PH.D.

## PART I

**I**t might readily be assumed that there is no need to give consideration to the prediction of overt behavior from the various projective instruments. It is claimed, after all, that the realm of these instruments is that of the covert—that realm of feelings and assumptions of which the individual is at best dimly aware and which, in any case, he cannot verbalize directly.

Beyond the question of the validity of statements about overt behavior made from a projective technique, there occurs first the question of why one should bother. Why propose an intelligence quotient when a standardized intelligence test is available? Why describe the relationships to the parents when a direct interview on these matters with both the subject and the parents is possible?

I believe that there are answers to this first question which would, in varying degrees, make justifiable the devotion of a certain section of projective reports to predictions of overt behavior. I should like to comment briefly on only one of these answers. It is the answer that rests on the logic that behavior is dynamically motivated. We do assume that behavior bears some discoverable, if not direct, relation to underlying dynamics. And conversely, we do suppose that a particular pattern of inner dynamic relations has some greater tendency to be related to one pattern of overt behavior than to another. We are inclined to note the interconnection of the overt and the covert only after we have been informed of the overt—the "Aha" phenomenon of clinical psychology.

We are much less inclined to submit to examination our presumptions of these interconnections by stating them in advance. In case of error, we could of course point out that the

3. The existence of cultural restriction or encouragement of behavior appropriately expressive of that motive, including the social group appropriateness of various forms of expression of the motive.

4. The opportunity for overt expression—including presumably the past history of such opportunity throughout some sector of the life history of the individual.

5. The ego strength of the individual—a factor not directly referred to above, but one which might be thought to be influential in all spheres of the individual's life.

In other words, the prediction of the overt expression of various personality states hinges upon the successful estimation of the interactions of these issues—some of which relate to the attendant internal dynamics (whether in the past or present) and some to the social circumstances of the individual's life—whether in the past or present. Explicit in this summary should be the recognition that variance is also in part attributable to those areas of overt behavior and of internal motive under consideration.

## PART II

Even recognizing this very gross outline of the complexities, we still require some guideline to the utilization of these factors in making individual predictions from single records. I should like to suggest two such guidelines, two logics for predicting the overt behavior in question here. The two cases provided us by Dr. Carr more than adequately attest to the difficulties inherent in such prediction. Since we were informed in advance as to which of these twins was heterosexual and which homosexual, I shall be able to spare you the recital of my impeccable logic in deciding which was which. I should like to present first a logic which is sufficient, in this instance, to the problem of predicting the particular area of motive and behavior. To do so I would like to call attention to certain knowledge and background information available in the cases. I will ignore the possible symbolic cues involved in the names Tom and Dick—since we know these names to be fictional and since, in any event, it is not clear

ships are found when needs other than the principal one under study are taken into account, and when the past social experiences of the subjects are considered in more detail.

Subsequent to a more complex statement of these overt-covert relations by Sanford and his associates (7), Mussen and Naylor (6) varied the social class background of a group of subjects to bring into focus the social sanctions regarding aggression in middle and lower class boys. They subsequently introduced a further complexity of internal dynamics by utilizing a measure of the anticipation of punishment—an internal residue, presumably, of the extent to which within each class group, aggression had been punished. Their results support the proposal that the expression of aggression will vary according to the amount of negative sanctions on aggression in the class group and according to the extent to which the individual anticipates punishment as a result of such expression. Kagan (1) has also shown that expression will vary in terms of the strength of the need, the degree of anxiety surrounding the need, and, further, according to the kind of aggressive behavior—the relations being more clear-cut in the case of aggressive behaviors more closely analogous to his overt criterion.

Lesser (2) has shown a similar relation to the maternal attitude toward aggression—a significant positive relation in children of mothers who permitted the expression of aggression, and a significant negative one in cases of mothers who suppressed it.

These studies serve to bring into focus some of the great complexities surrounding the expression of overt behavior—at least in the case of certain personality needs—and to highlight the difficulties of predicting such expression from individual TAT records.

One might summarize some of these issues by reference to the five factors relating to need expression outlined by Sanford *et al.* (7).

These are:

1. The strength of the motive.

2. The relationship of that motive to other characteristics of that individual, including such issues as the anxiety which surrounds it or the anticipation of negative sanction upon its overt expression.

of the internal dynamics of the two cases, nor does it depend upon the relation of these dynamics to what we might presume to be the dynamics of homosexuality, nor does it depend upon any formal diagnostic signs of homosexuality.

I have stated my comment on these cases from this vantage point, rather than that of internal dynamics, to emphasize the explicit use of presumptions and knowledge often used only implicitly in such predictions, and in part out of temerity—recalling the difficulties experienced by the more skilled clinicians in the study previously reported by Dr. Evelyn Hooker, our discussant.

This is not to say that I do not believe that the internal dynamics have something to do with the prediction of behavior. There is no question that they do, and no question that statements beyond the two I have made—ego identity and selection of the homosexual twin—would require such analysis. However, successful prediction based on the internal dynamics assumes that we know what pattern of dynamics, once found in the case, to label heterosexual and which homosexual. It presumes, in other words, a matching of dynamics found in an individual case with some "norm" of dynamics for a particular personality group. It is apparent, I believe, that except in certain extreme and/or special homosexual groups, our knowledge of the varieties of dynamics involved in homosexual life-styles (not to mention heterosexual ones) is insufficient to make such a predictive venture successful. To approach the prediction in another way, applying another logic, we may look more closely at the actual protocols.

Further examination of the 1959 records of Tom and Dick will show additional features of similarity and dissimilarity. First, as may also be the case with the other protocols, the manifest similarities in content are so great as to suggest a hoax—which Dr. Carr assures us, is not the case. Highly similar plots phrased in similar thought content occur again and again—attesting possibly to the supposition made earlier of their close relationship. In 4, both see a heterosexual scene peopled by movie characters. In Dick, it is Linda Darnell and Paulette Goddard. In Tom, the plot is similar, the characters Rory Calhoun and Linda Darnell. In their choices of Best Liked pictures, they both select 14 and 2.

whether symbolic phallic reference implies the utilization of that object in a heterosexual or homosexual context.

First, we know they are identical twins. While we may suppose little from the identicality, we do perhaps suppose that they were unusually intimate in their developmental years and hence that the resolution of sexual identifications was in some sense a joint venture.

Secondly, we know that one of them, as our information tells us, "has been living an active homosexual life."

Thirdly, we know that the one of them underwent two years of psychoanalytic treatment, presumably, though we do not know this, from some sense of need.

Fourthly, we were also informed that it was the heterosexual twin who undertook this analysis.

I would submit that these data are sufficient to propose that if one twin presents a firm sense of identity and ego organization, he will be the homosexual twin. Up to this point, of course, we have not looked at the test protocols at all. To decide whether it is Tom or Dick, we need only examine the records for the general area of adjustment and ego identity—without concerning ourselves with other areas of dynamics. This logic is, of course, based on the four areas of information already given us—presuming for the moment that we do not know *a priori* which twin is which. In this sense, our predictive task is different from the task imposed by a quite different question—a question we are not asked—is one of these two persons homosexual? We know one is, we know the two persons have had intense personal interaction, and we know that the heterosexual one has had sufficient difficulty to undertake analysis. The secondary presumption is that the other twin, the homosexual one, did not have such difficulty, or at least resolved it without outside aid, and that he should be the one whose test protocol reflects this resolution. The two records, of 1959, differ considerably in at least one area of ego identity, and it is Dick who presents the clearest, most "mature", sense of identity and life purpose. He is therefore the homosexual twin.

It will be noted that this logic in no way depends upon the analysis of the individual test protocols from the point of view

Thus one might say that Dick has incorporated an initial father hostility, taking over for himself the assertive male elements; he has neutralized all female cathexes but without binding resentment; he has special open areas of positive identification in the peer male area, both as regards work and ego oriented activities, as well as affect and impulse activities. He thus becomes the active male, relating to females only in formal role-defined ways, and to males as the only real objects of affect and ego-relatedness—preferring sexually males younger in character.

Tom, on the other hand, remains tied and bound to unresolved images in all categories; the mother image he tries to please and satisfy but is not sure how; young females are objects of threat to him, principally via their sexuality; father and adult-maleness represent horror and corruptness; peer males are not understood. His only open area is that defined by the hypothetical possibility of incorporating the maternal imagery. He thus becomes the technically heterosexual person, preoccupied with the presently unsuccessful effort to resolve his horror of maleness by over-determined relations to women—probably older and maternal in character.

In summary, I believe we have available, in the case of the TAT several possible logics by which to explore the relations of personality dynamics and overt behavior. These logics occur at different levels of relation to inner dynamics and overt social pressures. I have illustrated here two such logics, both stemming more from ego and role levels than from levels of either direct social expectancies or deeply unconscious factors.

I would take it that one of the crucial next tasks with the TAT is that of systematically integrating such knowledge as we have of inner dynamics and overt behaviors. This of course must be done under conditions wherein the intervening concepts of analysis have greater stability than they now do and wherein the logic of a statement of a relationship is itself explicit and open to examination.

#### REFERENCES

1. Kagan, J.: The measurement of overt aggression from fantasy. *J. abnorm. soc. Psychol.*, 52:390-393, 1956.
2. Lesser, G. S.: The relationship between overt and fantasy aggression

At another level, however, we may briefly examine four areas—represented by cards:

6 BM—the area of maternal imagery and of the relation of child to mother.

7 BM—the area of paternal imagery and of the relation of child to father.

4 — heterosexuality and in particular, the image of same-age females—peer female.

14 — the image of maleness in relation to outer world events —peer male.

The logic here is, of course, that the sexual orientation of a person may be described by the imagery which he has developed in these areas.

Focusing primarily upon the area of interpersonal relations and upon these 4 roles as guides to the action of the person, one may point out certain differences:

	<i>Tom</i>	<i>Dick</i>
<i>Mother Image</i> (6 BM)	Affect is bound, subject enmeshed in need to relate to M.	M-image negative but neutralized. Affect relation blocked. M-figures cut off and relation denied.
<i>Father-Image</i> (7 BM)	Distrustful, but again affect bound Adult male defined as bad, corrupt	Resolution of negative F-image and adoption of assertive and independent maleness
<i>Peer Female</i> (4)	Denial of relation, F seen as "unreal," but still bound and need punish Undetermined nAgg female sexuality	Relation handled via secondary roles—movie characters. Minimal affect, neutralized as with M-image but more interactive.
<i>Peer Male</i> (14)	Identity confusion Denies Ach nAgg elements of maleness	Positive identification with assertive maleness, both affect and ego oriented.

of these two cases would be found in at least the four areas of Maternal Imagery, Paternal Imagery, Peer Female and Peer Male Imagery. In the 1959 records I felt that the prediction of overt homosexual or heterosexual activity could be made. Let it be clear that I would not always expect that to be the case from such data, nor that I would always expect to be right when such predictions do seem possible. A useful comparison can be made, however, by examining these same four areas in the 1957 records. I have followed the same procedure as with the later records and would note the following:

	Tom	Dick
<i>Maternal-Image</i> (6 BM)	Incomplete Mother-son relation mediated by outsiders. M-relation bound. No affect expressions present.	Relation to M neutralized and affect blocked. But assumes M able to sustain shock.
<i>Paternal Image</i> (7 BM)	Male defined as bad and encouraging of "badness" in son.	Male seen as bad but still some identification with F's autonomy.
<i>Peer Female</i> (4)	Exaggerated definition of female as negative. Separation of peer female sex and love.	Peer female relation handled via secondary movie plot. Denies personal relevance but not hostile.
<i>Peer Male</i> (14)	Partially open peer male area, but without identification. No masculine elements of assertion.	Positive identification with accomplishing maleness, both work and affect.

One can comment on these from one case to the other at this 1957 point as well as comparing them with their own records two years later.

In comparing them both for 1957, the record of Dick seems to be the more "normal" record. By this I merely mean that the utilization of his intellectual capacities seems better and easier than with Tom; he employs relevant affect and emotion in appropriate contexts. Tom, on the other hand, presents a more "disturbed" record

- as a function of maternal response to aggression. *J. abnorm. soc. Psychol.*, 55:218-221, 1957.
3. Lindzey, G.: The use of projective techniques in anthropology, social psychology and sociology. *Social Science Research Council Monogr.*, 1960, in press.
  4. McClelland, D. C., Atkinson, J. W., Clark, R. A. and Lowell, E. L.: *The Achievement Motive*. New York, Appleton-Century-Crofts, 1953.
  5. Murray, H. A.: *Thematic Apperception Test Manual*. Cambridge, Harvard University Press, 1943.
  6. Mussen, P. H. and Naylor, H. K.: The relationship between overt and fantasy aggression. *J. abnorm. soc. Psychol.*, 49:235-240, 1954.
  7. Sanford, R. N., Adkins, Margaret M., Miller, R. B. and Cobb, E. A.: Physique, personality and scholarship. *Monogr. Soc. Res. Child Develpm.*, 8.No. 34, 1943.

#### ADDENDUM\*

The comments made in the paper above, delivered as part of the symposium, were based upon some general considerations and illustrated with the 1959 records of the twins. The possibility exists of extending these remarks to cover a broader sample of behaviors which might conceivably be predicted from the TAT. However, since the focus of this symposium was the prediction of the differential sexual orientations of these two cases, and since I have dealt with the broader topic elsewhere (1-3), I will comment here only on the resemblance of the 1959 records used to the 1957 records of those same cases.

I have already noted in my principal comments that our knowledge of the range of life styles which may be called homosexual or heterosexual is insufficient to provide a clear guide to some recurring set of psychodynamics. Were this the case, prediction would be an easier job, involving only one's ability to observe that particular set of dynamics in case material.

My assumption in the examination of the 1959 records was that material relevant to the description of the sexual orientation

\*Prior to publication of the symposium proceedings, participants were invited to make additional comments either in regard to Dr Hooker's discussion or test data not previously interpreted.

conflict in 1959 which was not present in 1957. In both, however, he denies any direct masculine competence elements and prefers to see the male hero as indulged and non-work oriented.

It is difficult to imagine what predictions one would make if the facts were not known. In the 1957 records, I now feel that the comparative position of the two cases with regard to sexuality was the same as in 1959. Tom, however, has altered in 1959 to an increasing expressiveness and lost some of his harsh denial of all affect. This change makes me feel more confident about the portrayal of his 1959 sexual orientation made earlier. I would be more hesitant to make such a prediction based on the 1957 records. It is possible that examination of other aspects of the TAT, ignored in this limited approach, would resolve some doubts. As it now stands, however, Tom's behavior would seem to be more reflective of his many binding relationships and distorted by his compelling anxieties than expressive of any basic positive interests. In this case, his overt sexual behavior could readily be expressive of resentments, influenced by sympathetic social contacts not apparent from his TAT, and hence difficult of prediction without more information. Even with these limitations, Tom's unresolved mother relation, his expressed if over-determined interest in female sexuality suggest this as a central area likely to be worked out in action. The passive aloneness he sees in peer males and the hostile attack on adult males suggest this as an area of avoidance.

#### REFERENCES

1. Henry, W. E. *The Analysis of Fantasy*. New York, Wiley, 1956.
2. Henry, W. E. and Farley, J.: A study in validation of the thematic apperception test. *J. proj. Tech.*, 23:273-277, 1959.
3. Henry, W. E. and Farley, J.: The validity of the thematic apperception test in the study of adolescent personality. *Psych. Monogr.*, 73:No. 17, 1959.

in these same two spheres. His organization is rigid and insufficient for the problem presented and his affect is generally blocked, and is harsh and unforgiving when it is indirectly implied.

Beyond these general points, Dick presents a picture highly similar to his 1959 pictures. The Mother imagery separates mother from son as an interactive force—though if anything he felt more benign toward her in 1957 than in 1959. In both instances, however, he has blocked her off and denies her any real role in his own life. The Father, male adult imagery is again briefly similar to his 1959 record. The father is a negative, undesirable person from whom, however, one can abstract some usable attributes, those of masculine assertion and competence. In 1959, this picture is clearer and the competence elements are more integrated into self than in 1957.

In these two elements of parental imagery, the elapse of time—and possibly other events—has resulted in an increased sense of masculine competence for Dick and enabled him to reduce somewhat, though not forget, his father-hostility. The slightly less benign presentation of the mother in 1959 may be without significance. On the other hand, it may suggest some increasing sense of loss in his ability to establish love relationships of adequate durability.

For Tom this area of parent contact presents a more marked difference than is the case for Dick. While the over all imagery is similar—bound to mother through a paralyzing but ambivalent dependence and bound to father through a crippling hostility—the 1957 records present a picture of affect denial and interpersonal harshness not seen in 1959. By 1959, Tom has begun to concede his emotional involvement and become somewhat more directly expressive.

In the peer areas, Dick presents essentially the same picture as he does subsequently in 1959. This is in essence the neutralizing of female relations, without binding hostility, and the elaboration of male relations as sources of positive reward in both impulse and work arenas. Tom, in 1957, is even more callous and unable to cope with peer female imagery than he is in 1959. If any difference may be noted in his peer male relations, it is in the direction of some opening of affect. This opening presents the image of a possible

defined and controlled objective conditions. Hence, in such theoretical circumstances, objective or structured tests may offer the optimal assessment approach—to gain direct access to sample data of the very criterion we are trying to predict. However, in many, if not most situations, and certainly in clinical situations, these ideal conditions do not obtain, for the individual may show an unknown degree of unreliability in his behavior, underlying motivational factors may change, or varying stresses in the life situation (with their conscious and unconscious symbolic meaning to the individual) may precipitate variable resultants in the overt behavior.

If we keep constantly in the forefront of our thinking the idea that overt behavior is merely the end product resulting from any one of a combination of factors we can begin to appreciate that such predictions are in their essence contingency predictions. And to make contingency predictions we must know the parameters relevant to the prediction problem. Yet it must be clear that ordinarily we have only limited awareness of the nature or ordering of these parameters. Furthermore any single assessment technique is likely to have seriously limited values in providing the array of data needed for such contingency problems.

It is in the light of such general considerations as these that we can evaluate the advantages and limitations of various types of projective assessment techniques. In theory, projective tests offer us the possibility of assessing to some extent both conscious and unconscious determinants of behavior although for good reasons depth psychology (or dynamic or analytic psychology) has stressed the virtues of such procedures for measuring unconscious factors. To the writer it seems axiomatic however, that one cannot fully assess the one without the other for each is part of the whole and each gains meaning in terms of the other. Thus the unconscious meaning of acting out for example can only be understood if we are aware of the types of situational stresses and symbolic meanings for the individual's internal presses which may precipitate acting out. In fact, if we conceive of all overt behavior as the end product of internal homeostatic processes designed to offer the individual maximal adjustment for him at any given moment to external as well as internal stresses we cannot avoid the conclusion that to borrow from a popular song "We can't have one without the other."

# THE REVISED BENDER-GESTALT VISUAL MOTOR TEST

MAX L. HUTT

## PART I

The purpose of this paper is twofold: to illustrate the possible uses of some projective techniques in predicting overt behavior; to make explicit some of the assumptions and methodological considerations underlying predicting overt behavior. Since the former problem involves the use of certain assumptions and methods for its success or failure, we shall discuss these before proceeding to an examination of the test data.

The difficulties in predicting overt behavior are legion. Whether the problem is to assess competence in clinical psychology (7), or in psychiatry (3), or whether the problem is to assess specified behavioral traits (8), the paths of both researcher and clinician are laden with difficulties. Even if we assume that the criterion problem (an extremely complex problem in itself) has been solved (5), there are unique difficulties in making the transmutation from projective data to overt behavioral data. It has even been suggested that for the prediction of overt behavior, especially of the more circumscribed kind, the most simple types of objective tests or small samples of work or life history may be the most appropriate means (3, 5) for such methods are more likely to replicate the very behavior one is trying to predict. Nevertheless, the prediction of even simple types of overt behavior from parallel samples of test or life history data has its serious hazards, since the phenotypic data may very well be the end-product of complex and different underlying processes and factors. We may take it as an axiom that when the problem has been defined as that of predicting well-defined and specific simplex behavior in cases of stable and well integrated individuals in life situations that are themselves quite stable, we should attempt to gather test samples of the very same type of data under carefully

These last remarks lead to what I should like to call the development of sequential hypotheses about the patient. They are somewhat like configurational analyses, which I have discussed elsewhere (4, 5), but they are quite dissimilar to actuarial hypotheses although, in the end, they also rely upon actuarial data for their evolution. In sequential analysis we attempt to do a number of things. First, we follow the patient through his successive adaptations and defensive maneuvers with the test problems, hypothesizing quite freely what each successive state of behavior is likely to mean or measure. Thus we form a series of successive hypotheses about the patient, some of which may appear to be paradoxical or even contradictory whereas others may appear to be mutually reinforcing or supplementary. It is best if we can pin each of these hypotheses to actuarial data or at least to subjective norms built up out of one's extended clinical experience. Next we try to reformulate these hypotheses so that we emphasize the contingency nature of the predictions; i.e., we state as explicitly as we can under what conditions each hypothesis has emerged. Then we attempt to empathize with the patient as he successively adjusts to the test situation, making full use of the symbolic response data as well as of our intuitive understanding of the dynamics which led to each successive response. Finally, we attempt to resolve the apparent contradictions in our hypotheses, weight the evidence for each of our formulations, relate the configuration of hypotheses to what we know in general of psychopathology and personality development, and reformulate our predictions on a contingency basis so as to offer the most parsimonious explanation of the individual. We are, then, finally, in a position to indicate the limits and degrees of confidence we can attach to our integrated formulations.

I suggest that the aforementioned capsule summary of sequential hypothesization be done independently for each major source of data about the patient, that is, for each test, for interview data, for observational data, and for life history. These separate formulations will then have to be reconciled and integrated. It is likewise true, as has been demonstrated, that there may be a point of diminishing returns beyond which the inclusion of more data adversely affects the clinician's predictions (1). It is also probably true that clinicians vary in their capacity for utilizing such an approach,

other." And projective tests offer at least clues, and sometimes palpable scores or configurations, of conscious motivations as well as unconscious ones. One might say that, in general, projective tests maximize the variance of unconscious factors whereas objective tests maximize those of conscious factors, but neither relies exclusively upon only one of these.

Hence it is, that we can regard projective tests as offering us, at a given time in the life space of the individual, a variety of leads to both unconscious and conscious factors, the interplay of which in varying proportions, enables us to understand, and hence predict, the ways in which an individual may adapt to defined life situations. Notice that the tests hardly define the life situation, but rather that this is left undefined so that the predictor then has the job of specifying under what circumstances each of a variety of end-product overt behaviors is likely to emerge.

Let us elaborate a bit on the assessment of these two levels of evaluation; unconscious and conscious. It seems that, to the extent that the stimulus is unstructured, or the test problem undefined, and to the extent that the approach to analysis of test data is oblique rather than direct (i.e., analysis of implicit rather than explicit meaning of the response), the test or examiner will be emphasizing unconscious factors. On the other hand, to the extent that the stimulus is structured and the methods of analysis direct (i.e., as in evaluation of manifest content), conscious factors will be maximized.

We can assume that, whatever the clinical task, the patient's methods of work, his concurrent verbalizations, his explanations of his methods and solutions, and the manifest content of his test record will offer leads which are heavily weighted with conscious meaning. If we examine the context in which these occur, we may then have important leads to circumstances in later life which are likely to elicit similar or replicable types of overt behavior. On the other hand, if we simultaneously examine the unconscious configurations out of which such test data and behavior emerge, we can, perhaps gain a better understanding of the internal sources which lead to the overt behavior, and if our analysis has validity, we should therefore be able to improve our predictions.

increase with each successive drawing. (Note, for example, that Tom has drawn 5 of the figures on the first page, and has drawn 4 figures on the second page, using the entire page in each case.) Moreover, although he has utilized space liberally, the spacing of successive figures is appropriate to the size of the reproductions. With this initial information, we are able to support some hypotheses based on Tom's general approach to this problem. These are: he tends to be outgoing, labile and assertive in his approach to a new and relatively unstructured situation, showing no essential evidence of overt anxiety in his test behavior (although we can infer that the increase in size is compensatory for some degree of latent anxiety); he tends to order his world, using external controls (the numbering) to gain some degree of mastery or self-assurance (a sub hypothesis is that he uses the service of compulsive defenses to achieve this end-product); the appropriate, but liberal use of white space suggests that his assertive drives are at least reasonably well socialized.

A second set of general observations may be made, taking note of the relatively heavy line drawings he utilizes, and the generally impulsive or spontaneous (more probably the former) quality of his motor executions. These data reinforce our hypothesis that he is labile and outgoing, and that he tends to act out rather than suppress the discharge of his drives. One can infer that his outgoing and assertive behavior may, likely stimulate counter-assertive behavior in others so that, in turn, he has more apparent external basis for his own assertiveness; hence, if this were so, he would tend to use rationalization to a pronounced degree.

Now, turning to an examination of each of the reproductions, in turn, we note that: in Figure A\* (the circle and the square), he reproduces the Gestalt adequately (this will turn out to be generally true of the other figures); he places the figure in a common position on the page for Figure A (slightly left, top portion of the page); enlarges the square in proportion to the circle, markedly increasing its horizontal dimensionality; shows impulsivity in the drawing of the circle (overlap in closure); shows joining difficulty of the square and circle; makes no attempt to correct or erase;

\*Tom numbered Figure A as 1, and numbered the succeeding figures from 2 to 9. Thus, his numbering is always one digit higher than the "standardized" numbering.

depending upon their own personality attributes (1), and that types of clinical training and experience may influence the predictive capacity of the clinician who uses this approach (1, 6, 8). Thus we are not minimizing the difficulties and hazards of such an approach. Nevertheless, our own experience and the limited research data we already have, suggest the over-all advantages to the clinician (in contrast to the actuarial assessor) which sequential hypothesization offers.

## PART II

Now we shall proceed to elaborate some of these methodological considerations with a highly restricted sample of the Bender-Gestalt projective test data. We were forced to this decision by the realistic limitations that a symposium of this kind imposes. We were given a wealth of data: the original Bender-Gestalt reproductions of both identical twins, obtained some two years ago; the recall of the Bender figures obtained directly after the test was administered, standard Bender-Gestalt reproductions of both twins after two years; modifications of these figures according to suggestions advanced by Hutt (4); and associations to both standard and modified reproductions. In addition we had available the Draw a Person record of the twins at each of the two periods.

It was thought best, for purposes of this symposium, to concentrate our examination on the original Bender reproductions of one of the twins who had been in psychoanalytic treatment. It is hoped that the gain in somewhat greater analysis of method and example which this makes possible, will offset the loss due to the severe restrictions in the data which are being utilized. If our predictions lose something by virtue of the small sample, the clarification of the methodology may be ample compensation.

We are told that Tom, one of a pair of identical twins, is heterosexual and is 29 years of age. We have no information, unfortunately, on his methods of work during the original Bender test in 1957. Taking a general over-view of Tom's original Bender reproductions, we note that he has arranged the figures on two successive pages in correct sequence, and further that he has spontaneously numbered each of the figures from 1 to 9. The figures are considerably enlarged in size and this enlargement tends to

this time the dots are heavily filled in (in contrast to Figure 1). Thus, in an unclosed figure, Tom strives even harder to compensate for the loss of control, asserts himself even more strongly in stressing his need for dependent, interpersonal relations, but at the same time becomes more openly aggressive in his behavior.

Figure 4 gives us some additional clues to the underlying sources of Tom's problems and the residual behavior which he manifests. The unbalanced feature of this figure (with the curve at a 45 degree rotation from the horizontal) is relatively more upsetting to anxious, non-spontaneous adults than to others. In his reproduction, Tom makes two adaptations. First, he draws the curve in such a manner that the acuteness of the angle of the base and the upper curve is reduced. Second, he markedly increases the size of the curve, both absolutely and in relation to the open square. In addition, there is excessive, slightly fragmented looping on the ends of the curve. Further, one of the vertical sides of the open square is made longer and more jaggedly than the other. The open square is slightly larger than the stimulus but reduced in proportion to the curved figure. The typical signs of rapid, impulsive work habits are clearly noticeable. Our inferences are, respectively: he has an excessive need for control and conformity; he expresses hostile drives more openly in emotionally-tinged situations. He is, once again, showing his fearfulness of authority figures. Possibly, he has a more pronounced feminine than masculine identification.

Tom's first real indication of fairly severe inner tension and conflict seems to be revealed on Figure 5. Here some very striking modifications appear in his reproduction. In the first place, the hallmark of poorly controlled, impulsive drives appears: his figure collides with the upper edge of the page, and the vertical axis of the figure is thereby foreshortened. Yet, he makes no attempt to correct the figure or re draw it. He decreases the number of dots in both parts of the figure, but fills each dot in very heavily. Again, let us remind ourselves that this is an open, non-continuous figure (less structured). We cannot be sure of the possible sources of this overt, obvious breakdown in controls, but the following suggest themselves. Possibly, the accumulation of frustrations involved in the test procedure has begun to have its effect. More important, the unstructuredness of the figure creates special problems for an

slightly flattens the circle, the net effect of which is to increase the total lateral or horizontal dimensionality of the figure. From each of these observations, in turn, we are led to the following hypotheses: he has good contact with reality; and has reasonably good ego cathexes; he tends to be conventional rather than unconventional in his social orientation; he is making considerable effort to establish or maintain interpersonal relationships (showing a need for such relationships); he tends to be fearful in authority situations; impulsivity, as a character trait, must be fairly marked; he is dissatisfied with the nature of his interpersonal relationships, and more specifically is concerned over his sexual adequacy; affect is outgoing but may lack depth and integrated qualities in his total behavior.

Having exemplified some of the methods of inducing hypotheses with Figure A, I shall now, due to limitations of time in dealing with all of the data, move still more rapidly through the remaining figures. Figure 1 does not have much to offer us. It is correctly reproduced, although there is some tendency toward paired grouping of the dots. The dots are made fairly heavily, but neatly (no sketching). These data support the hypotheses that: he is in reasonably good contact with reality; he has good energy capacity which he expends in a centrifugal manner. The increase in the laterality of this reproduction emphasizes Tom's need to relate to others.

Figure 2 shows the following features: initially correct angulation of the first column of figures with a constantly increasing egocentric orientation of the successive columns (as if Tom were the pivot around which the columns were oriented); correct number of columns (if there were 11 columns in the original stimulus); circles drawn as good loops, but with some impulsivity and some closure difficulty. Inferences: good perceptual accuracy, but a strong narcissistic tendency and generally forceful but impulsive behavior; some fearfulness in interpersonal relationships. The egocentric trend combined with the previously noted labile and outgoing qualities indicate that, as a second order inference, he is insecure but compensates rather well for his latent anxiety.

On Figure 3 we note a radical, lateral and over-all expansion in the size of the figure but the Gestalt is preserved. However,

motor incoordination and poor control; joining and closure difficulty are very noticeable; he has great difficulty with the internal diamond, doing some re-drawings for the first time, and making many false motor movements in the process. Despite the history of heterosexual adjustment, which we are given, this analyst would question Tom's heterosexual adjustment. This reproduction is indicative of fairly marked conflict over homosexual tendencies. This problem probably lies at the core of his difficulties and insecurities in interpersonal relationships: he is really unsure of his sexual identity, and overcompensates with apparent masculine behavior to mask this problem from himself. The ambivalent quality of the internal diamond as a sexual symbol makes Tom's usual coping methods less adequate on this figure, and hence the redrawing and obvious uncertainties on this part of the reproduction. One can also hypothesize that, if Tom is egocentric in orientation as we have suggested, problems centering around masturbation as a tension reducer, are also present.

If time were to permit, it would be instructive to examine, next, Tom's record of recall of the Bender figures, given under Fred Brown's suggested procedure for recall (some 45-60 seconds after removing the original cards and reproductions), and to derive independent hypotheses from these data before attempting to integrate the hypotheses and to develop our inferences concerning overt behavior. Instead, we shall proceed to this latter step on the basis of what we already have in the way of observations of test behavior and deduced hypotheses.

Our analysis has yielded several hypotheses concerning underlying source traits and several hypotheses concerning explicit and simplex examples of overt behavior. We have begun to understand Tom as an outgoing, labile, assertive individual with strong, over-compensatory characteristics. We have seen that he ordinarily holds on to an adequate perception of reality, but that he shows considerable regression (neurotic in character) under specified conditions—namely, cumulative stress and more specifically, emotional types of trauma. We have seen certain features of his attempts at control through compulsive conformity and external props. From these and other types of evidence we must try to understand why

individual attempting to assert control through acting out and over-compensation. Other possibilities are, of course, likely to account for these phenomena. In any case, planning and anticipation are now shown to be inadequate. He is not the comfortable, confident figure he tries to present to the world. The tendency to edging of his figures, previously evident but not commented upon, is now reinforced by placement of the figure almost in the extreme, left-upper corner position. Strong compensatory efforts to ward off feelings of inadequacy and frustration are evident in the excessive effort devoted to filling in the very heavy dots.

On Figure 6, an extreme expansion in size, in both lateral and vertical planes, is noted. The size is more than doubled in both dimensions. The curves are flattened in the horizontal plane, and made irregularly and rectangularly in the vertical plane. The angulation of the figure is generally preserved, but the figure is rotated slightly in a counter-clockwise fashion. The loops, particularly at the ends of the vertical curve, are reversed. The whole figure appears to have been drawn rapidly and no revisions or corrections attempted. Inferences: acting out tendencies, under conditions of emotional stimulation are very pronounced; egocentrism is a central feature of the personality; contact with reality is maintained, and social conformity is exercised despite marked tendencies toward impulsivity; the extroverted, non self-critical features of the personality are highlighted. Aggressive tendencies, formerly kept under more adequate control, now assert themselves boldly.

Figure 7 shows the following features: simplification of the Gestalt (in that the two figures are made to overlap in the vertical segment of the vertical figure); closure difficulty; irregularity in line movement and line quality. We can now hypothesize that under the impact of progressive traumata there is a regressive tendency; despite initial tendencies to apparent confidence in interpersonal behavior, there is considerable conflict and fearfulness in such situations; underneath the armor of self-confidence there is considerable latent hostility.

The last figure, Figure 8, is striking and unique in several respects. Despite his perceptual maturity, as revealed in previous drawings, he has considerable difficulty with this figure. The left-hand vertex of the lateral hexagon shows considerable evidence of

First, we can predict that Tom will function at least reasonably well in many, if not most, situations. He has considerable energy available for daily tasks, and he gives the superficial impression of a likeable, fairly stable and assertive person. He is usually orderly and controlled enough not to be gauche, and to be able to conform to social situations fairly well. His emotional behavior is also a social asset, in that his outgoing and apparently labile, responsive qualities make him rather attractive to others. He would particularly appeal to masculine-oriented women who would not see him as a threat to their own masculine strivings. He would generally tend to be expansive in mood and rarely reveal depressive reactions. He would not easily confide to others, however, his own gnawing feelings of inadequacy, nor would he be likely to reveal to others, much less to himself, his fearfulness of authority figures. He would be able to establish superficial relationships quite readily, and he would be a joiner and an active participant, but he would not develop intense relationships with anyone easily, if at all. Not only would he be assertive, however, but he would be self-assertive, whenever the situation permitted. One would also predict there would be apparently inexplicable periods of indecision, work reduction, and even more overt disorganization when he was unable to escape from repetitive emotional frustration. His own self-doubts and feelings of uncertainty would finally lead him to seek some form of therapeutic help.

In closing, I cannot forego a very brief comparison of Tom's original Bender reproductions with those he completed after two years of psychoanalytic treatment. I do not wish to comment on the evidence that the Bender gives us concerning the degree of improvement concurrent with this effort, for that would be presumptuous without considerable analysis of many other types of data, but I do wish to point up certain differences in the two sets of reproductions, as well as certain similarities.

First, the second set of reproductions, after some two years, were considerably reduced in size and the total amount of space utilized for the reproductions was reduced almost by one-half. Much more cohesion is also revealed in several other aspects of the drawings, especially on Figures 3 and 7. There is also noticeable success in solving the problem of overlapping of Figure 7, and

it is that he functions, at least on this test, in the unique ways that he does.

The core of his difficulties may be hypothecated to be in the problem of his sexual identity. Our inference was that he had dealt with the problem of latent homosexual tendencies by various mastery and compensatory techniques. Together with the hypothesis that he is egocentric but centrifugal in his orientation, we can point to an unsuccessfully resolved and repressed Oedipal problem with the likelihood that he was over-protected by a mother with whom he tends to identify. He had learned to perceive himself as more comfortable in a feminine role, but conflict resulting from the assumption of this role led him to assume more outgoing, assertive and "masculine" behaviors as a more secure mode of adjustment. Nevertheless, the underlying conflict remained, and more compensatory mechanisms were necessary to maintain a heterosexual way of life. On the other hand, the heterosexual way of life had its own social rewards, and probably helped to differentiate him from his identical twin. Thus, the masculine ways of behaving were reinforced and, in turn, these ways produced secondary gratification. Underneath, infantile sexuality remained, and fear of really close interpersonal relationships was fostered. Thus his self-perception became ever more obtuse and he had to learn to bolster his own sense of self by more outgoing, masculine behavior. In the process, spontaneous affective response and capacity for mature fantasy behavior were diminished. This, then is the neurotic character structure which is suggested by our data. Note, that we are giving no attention to physical history and other biological factors that may be relevant and important in attempting to understand Tom. Were these available we could then proceed to correct and supplement our present formulation.

Now, assuming our basic analysis is substantially correct, what can we infer about overt behavior? Here, we are severely limited by not knowing the conditions of the testing and by not having observational data concerning Tom's methods of work, his verbalizations and the like. Nor does this accounting of short comings consider other types of life history and test data. However, given these limitations, what can we now infer—with, of course, lowered limits of confidence—concerning such predictions?

7. Kelly, E. L. and Fiske, D. W.: *The Prediction of Performance in Clinical Psychology*. Ann Arbor, Univ. of Michigan Press, 1951.
8. Meehl, P. E.: *Clinical versus Statistical Prediction*. Minneapolis, Univ. of Minnesota Press, 1954.

#### ADDENDUM\*

Since we are offered the opportunity of extending the analysis of the Bender-Gestalt material, we shall now proceed, in order, to deal with the additional test data available for Tom; his recall of the Bender stimuli (in 1957) and the Bender-Gestalt retest in 1959, including the modifications and associations obtained at that time. We do not have any detailed observations by the examiner on Tom's methods of work, and so are unable to utilize this type of data in the evaluation.

The recall of the original Bender figures, some 45 to 60 seconds after removing the original cards and drawings, is our first concern. In analyzing this material, we shall first make two general assumptions: (1) Material which has had a traumatic impact upon the subject will tend either to be repressed (if it has been disturbing), or to be reproduced first, or early, in the recall sequence, (if it is unpleasant but the subject feels he can discharge some of his anxiety in "working it through"). (2) The subject will tend to exaggerate his previous distortions (or maintain the same degree of distortion) for those figures which were moderately to severely disturbing, while he will make compensatory adjustments for those previously distorted figures (and the related psychological phenomena) on which his performance was marginal. A corollary to these assumptions is that to the extent to which the subject suffers from more severe psychopathology, he will make more errors in recall (fail to retain the figures) and make more serious distortions than on the original reproductions. It is also assumed that the total amount of retention is positively correlated with the subject's level of general intelligence. Thus, analysis of the recall material enables us to confirm or reject inferences previously established for the

\*Prior to publication of the symposium proceedings, participants were invited to make additional comments either in regard to Dr. Hooker's discussion or test data not previously interpreted.

there is no real evidence of simplification. Much more control and even constriction appear in the second record. There is also some evidence of spontaneity in the arrangement of the figures; they are still orderly, but they are adapted to the space available on the page rather than to compulsive ritual; nor are the figures numbered. On the other hand, some of the exaggeration of figures in the lateral or horizontal plane remains. Difficulty with curved figures is still a noticeable feature. The angulation problem on Figure 2 also remains. There are definite signs of considerable internal tension, but fewer signs of acting out. Tom is less expansive and labile, but more tense as well as more inner-directed. Most strikingly, the difficulty with the problem of identity on Figure 8 is markedly reduced, although residuals still appear to remain. Lest it be inferred that I am attempting to evaluate these findings as a reflection of the psychoanalysis, *per se*, let me emphasize that I am only pointing up the fact that certain marked changes have occurred, while, at the same time, certain striking constancies persist.

## REFERENCES

1. Daily, C. A.: Some factors influencing the accuracy of intuitive understanding. Unpublished doctor's dissertation, Univ. of Michigan, 1950.
2. Goldberg, L.: The effectiveness of clinicians' judgments: the diagnosis of organic brain damage from the Bender-Gestalt test. *J. consult Psychol.*, 23:25-33, 1959.
3. Holt, R. R. and Luborsky, L.: *Personality Patterns of Psychiatrists*. New York, Basic Books, 1958.
4. Hutt, M. L.: Revised Bender Visual Motor Gestalt test. In A. Weider (Ed.), *Contributions Toward Medical Psychology*. New York, Ronald Press, 1950.
5. Hutt, M. L.: Actuarial and clinical approaches to psychodiagnostics. *Psychol. Reports*, 2:413-419, 1956.
6. Hutt, M. L.: The psychodiagnostic test battery: Use of the test battery for psychodiagnostic appraisal. In D. Brower and L. E. Abt (Eds.), *Progress in Clinical Psychology*, Vol. III. New York, Grune & Stratton, 1958.

involved. Figures A and 6 contain curved lines, and we have already inferred that Tom tends to behave in a labile, outgoing fashion in situations which are clearly seen by him to be affectively laden. Since curved lines commonly evoke reactions as if they were such situations, Tom's tendencies toward such reactions are thereby reinforced when he meets the recall task which these figures present. Figure 1 is an "open" figure, and is the one that is reproduced last in his recall series. Increase in size may thus be accounted for as a terminal response to a relatively simple situation in which he can act out his characteristic, labile tendencies, and thus remove himself from the test situation.

Returning, now, to a more detailed consideration of the various figures, we must note, first, that Figures 3 and 4 have not been recalled. In these figures, Tom first revealed, in the Standard Administration, some aspects of his underlying problem: confusion concerning his sexual role. The figures must be related, in Tom's unconscious, since both provoke real difficulties centering around interpersonal problems. Figure 4, moreover, not only followed Figure 3 in the original presentation, and thus added cumulatively to the stress which was provoked, but showed considerable distortion because of feminine qualities of the curved portion. The total figure thus was indicative of severe stress reaction in the face of an authority symbol (the open square), counterbalanced by a tangential feminine symbol (representing the breast?). We can therefore hypothesize (given both the above analysis and the failure of recall for these figures), first, that these figures represent a severe threat to Tom, and second, that the temporary amnesia for the recall was provoked by his difficulty in facing and dealing with his severe conflict over his sexual role. He "meets" this situation with characteristic hysterical, stylistic features: by avoiding it!

We have already made some comment about Figure 5. We can now add, that the repetition compulsion evident on this second collision (with the edge) tendency is indicative of Tom's habitual impulsive behavior. Perhaps the curve again represents a feminine symbol, and the secant represents a phallic symbol. The "openness" of the figure produces, for Tom, a reduction (again) in the number of dots, and Tom's total reaction reveals a breakdown in

reproductions obtained on the Standard Method, and offers additional sources of data concerning other aspects of the subject's performance and personality characteristics.

On the recall material, Tom has again organized his reproductions in the same expansive style he used previously (using two pages for the seven drawings), he has again placed the figures in regular sequence on the pages, he has not made excessive use of the margin, and he has again shown the same collision tendency on Figure 5. Thus, we have confirmatory evidence that Tom's personality, as revealed on this test, is outgoing, labile, and assertive, and reveals no prominent evidence of overt anxiety. Compulsive defenses may again be inferred. The collision tendency reveals some defect in anticipatory planning—a tendency which appears only under a specified condition (see below), when ego functions are markedly disturbed temporarily. Although the evidence concerning his general approach is clear, there are a number of significant exceptions, and we shall examine these next.

Figure 7 is now reproduced in considerably smaller space, while Figures A, 1, and 6 are enlarged. Figure 7 is a closed, overlapping figure, and commonly evokes aggressive impulses and sexual conflict (as the prototype of sexual interactions). On this figure, Tom is apparently trying to gain some measure of control by reducing its size. In this he is successful, for the line quality is improved and closure difficulty is reduced. At the same time, he exaggerates the angle of intersection of the two parts of the figure, he simplifies the overlapping problem by having the point of intersection occur at an apex of the vertical figure, he increases the width of the vertical figure (thus revealing strong feminine identification), and he shows some difficulty with line quality in that one of the vertical lines is curved. We derive mixed inferences from these data. Tom shows adaptive potential (a good prognostic sign for psychotherapy) but reveals, again, the difficulty he is having with the problem of sexual identity. The problem of assuming an adequate masculine role in sexual intercourse is a difficult one for him.

We may now ask, "Why does Tom increase the size of Figures A, 1, and 6?" It is difficult to be sure of the factors that may be

taneously or deeply. We can infer that he uses both intellectualization and isolation as prominent defense mechanisms.

We have already commented in some detail on Figure 7. It is only necessary to add that the evidence, adduced by this reproduction and previously commented upon, seems to hold up well in the light of the other evidence provided by the previous figures.

Figure 8 shows a remarkable recovery in the reproduction of the internal diamond. This time, Tom had little difficulty with this portion of the figure, and not only shows no repetitive attempts at its mastery, but solves the joining and closure problems fairly well. We can infer that, if the internal diamond represents a feminine symbol, as we believe, and despite Tom's inadequate heterosexual adjustment, his homosexual difficulties are not the basic, primary aspects of his problem, even though latent conflicts concerning homosexual impulses are undeniably present. The exaggerated phallic endings of the external hexagon once again reveal his compensatory attempts to act out the role of the adequate male. Once again, the improvement in the over all reproductions is a good prognostic sign of Tom's potential for effective use of psychotherapy.

Thus, taken all in all, the recall material suggests no basic contradictions to the inferences we developed from the analysis of the reproductions in the Standard Procedure. Most importantly, the basic conclusions are reinforced. Tom is seen as an individual with both hysterical and compulsive features in his personality, and with a core problem in his sexual identification. The personality shows many infantile characteristics and is characteristically both labile and egocentric. It is more clear now that an unresolved Oedipal problem is central to his difficulties, and that although he shows both oral and anal features in the personality, his primary regression is to the Oedipal level. It is now more likely that, if uncovering therapy is attempted, the latent anxiety will become much more openly manifest, and that Tom will have to undergo the experiencing of much of his previously warded-off anxiety. He is likely to become overtly more disturbed before he can resolve his basic problems. At the same time, the recall data suggest that he has reasonably good potential for uncovering psychotherapy.

that aspect of ego functioning which involves planning and anticipation. The figure is placed near the corner of the page. Moreover, it is the first one reproduced in recall, thus suggesting the need for rapid discharge of the tensions which are elicited. The fact that it is recalled rather than repressed augurs well Tom's ability to deal with this problem under the supportive conditions of psychotherapy; The distortions suggest the nature of the severe underlying and largely unconscious problems.

Figure A, which follows next, has an additional noteworthy feature, not previously commented on. This time, the circle is enlarged in the horizontal dimension (making it into an ellipse), and the diamond is reduced in the same axis. The joining and closure difficulty, present in the original reproduction, persists. Now, in the relatively free situation of recall, without the reality pressure of the original stimulus constantly in view, Tom exaggerates the female symbol. Thus, he reasserts his own feminine orientation, and at the same time reveals his difficulty in interpersonal situations.

Figure 2 again reveals the egocentric orientation of the successive columns of circles, the same impulsivity, and the same closure problem. Again, he produces eleven columns of circles. This type of attention to detail is indicative of the compulsive features of his personality. We are led to believe that he compensates relatively well for his latent anxiety, but that he is basically an egocentric, although labile, individual.

In figure 6, the sinusoidal curves, we can more clearly infer the nature of Tom's affective behavior. The horizontal curve has only three large waves, while the intersecting curve (more or less in the vertical plane) has more controlled and more pronounced waves. Aggressive acting out, under a fair degree of control, and conventional affective behavior in authority situations may be hypothesized. The intersection of the curves is inappropriate, possibly indicating Tom's superficiality in his interpersonal relations. We are led to believe that Tom behaves as if he were experiencing the appropriate emotions, role playing as it were, and makes a conscientious effort to do so when confronted by people whom he considers authoritative, but is unable to experience affect spon-

indicative, as is true of the whole set of 1959 drawings, of the increased cohesion in Tom's personality—of his increased inner tension.

Figure 1 is reproduced correctly, but there is no conspicuous, heavy filling-in of the dots. The dots tend to be arranged in pairs. The marked increase in the lateral dimension which was noted in the original reproductions is absent. Thus, we would infer that Tom is able to deal more simply and realistically with the problem presented by this figure, that he is in good contact with reality, and that his excessive need to relate has been reduced.

The most striking change in Figure 2 is the absence of the egocentric orientation of the successive columns of circles. Other features, aside from the reduction in the lateral dimension of the whole figure (which holds true for all of the figures), are essentially the same as they were previously. Tom's first columns are placed at approximately the correct degree of angulation, but the following columns are drawn with reduced angulation. We would interpret these findings as indicating that he is less self-centered, but is still fearful of emotionally charged situations. His internal controls are functioning better, he is denying his impulses less, but is paying the price in somewhat increased, overt anxiety.

Figure 3 is better proportioned in size in relation to the stimulus, but is markedly cohesive. The drawing reveals the impulsive use of circles, instead of dots, on at least two and possibly more of the details. Again, we have evidence of some acting out and of inner tension.

On Figure 4, the curved portion is correctly oriented in relation to the open square (which was not the case in 1957), but the size of the curve is still exaggerated somewhat, and the loops are still exaggerated, also, but are no longer fragmented. The open square shows relatively little distortion. The most significant change, that of the relationship of curve to open square, is indicative of a change in his sexual identification. He is much more accepting of a masculine role as his true identity, although this problem has still not been resolved.

On Figure 5, which caused Tom great difficulty on both the Standard and Recall portions of the 1957 series, his present per-

He is reasonably well motivated for therapy, some of the conflictual material is close to preconscious awareness, and ego integration is reasonably well intact. We can infer that his heterosexual behavior is a defense against homosexual conflict, but we also have some evidence that his homosexual problem is not necessarily the primary one; rather, the problem of never having resolved his Oedipal problem may have led to the activation of a homosexual orientation, and this, in turn, was defended against by the facade of heterosexuality. We can now more fully understand why it is likely that Tom would gravitate toward a non-threatening, masculine but permissive, type of woman—one who could take a strong, assertive, mothering orientation toward Tom, but who would not confront him with his own inadequacies in his masculine role playing.

Now let us turn to the follow-up data, obtained some two years later.

In contrast with the earlier test, the present reproductions occupy only slightly more than one page, and, in general, are constricted in size. Moreover, although the sequence is still orderly, there is more appropriate use of the space available on the page, since some of the drawings are placed alongside each other in more spontaneous fashion. Thus, we can infer that Tom is in good contact with reality, is somewhat more spontaneous, but is also experiencing more subjective tension. More than this, Tom now shows less lability in his general style of drawing and far less self-assertiveness. We also note that the figures are not numbered, as they were in the 1957 test, so we have some evidence that he has less need of external props or controls than he formerly did.

Figure A is placed quite close to the upper, left corner of the page, showing more overt anxiety in Tom's approach to the test situation. The closure and overlapping difficulties, noted previously, persist in this drawing—indicative of persistent difficulty in interpersonal situations (but the nature of this problem has changed, as we shall see shortly). Significantly, the compensatory increase in the size of the diamond is no longer present. Thus, Tom's need to create a "masculine impression" is not so marked. The appropriate and smaller size, in general, of the drawings is

has now defined his problem in this area much more accurately and has begun to cope with it.

Let us turn, now, to the Modification portion of the record and the Associations to the Standard and Modification portions, before we sum up the findings on the retest.

Following the procedure suggested by Hutt (4), Tom was given Figures A, 2, 4, 6, 7, and 8 again, being asked this time to modify the figures in any ways he wished so as to make them more pleasing to him. After this, he was asked to give his associations to both the original stimuli and his modifications. The rationale for these procedures is discussed in the cited reference.

On Figure A, Tom felt, as he tells us in his associations, that he had to do something with the "imbalance" or "sliding off" qualities of the stimulus. Thus, in his modification he encloses the two parts of the figure in a frame, and thereby tells us of his need to maintain some sort of control in this, for him, symbolic representation of the relationship between male and female. His comment that his drawing represents an "abstract painting" may be interpreted to mean he is using intellectualization as a defense against this type of conflictual situation. Thus we can see in operation, as we commented in our original A. P. A. paper, impulses which are at both levels of awareness—the conscious and unconscious. We can therefore suggest that Tom is now consciously aware of his uncomfortable feelings—his inner tension—centering around the conflict in sexual roles, but is not fully aware of the underlying bases for this conflict. We should also comment on the fact that, although Tom has turned the paper on its horizontal axis for all of the drawings—an indication, in his case, of the more subtle handling of his assertive drives—he persists in exaggerating the vertical dimension by drawing Figure A in that orientation. Moreover, he places the circle above the diamond—an indication of his perception of the more dominant role he assigns to females. The "frame" he utilizes for his drawing, a curve with phallic properties, underlines his ongoing, and unresolved attempts at solving his Oedipal dilemma. In short, taking all of the evidence on this drawing, we can say that Tom has begun to define his problem, has somewhat more appropriate means of dealing with it, but has not worked through to a full resolution of it.

formance shows notable change. There is no longer any hint of a collision tendency, he does not utilize heavy, filled-in dots (except for one dot), the phallic portion of the figure (the secant) now has greater length (6 instead of the 4 dots on the original reproduction), but the whole figure appears to have been done rapidly. The use of dashes in place of the dots should be noted. Although, therefore, this figure still causes Tom difficulty, he handles it much better. He responds in impulsive fashion, getting out of the situation quickly, but he does not lose control to the extent he formerly did. The situation makes him tense, but he does not have to fight intense feelings of inadequacy.

Figure 6 causes Tom real difficulty. The markedly variable amplitude of the curves, the jagged line quality, the flattening of most of the waves, and the compensatory reversal of direction of the vertical curve at the point of intersection, are noteworthy features. We have to infer that Tom is not only tense, but is very fearful in interpersonal situations in which effective elements are prominent. Thus, we have to modify our previous inference that he is doing quite as well as we would have believed in interpersonal situations. He still shows impulsivity, but egocentrism is far less marked, and he is able to relate better.

He shows considerable improvement in solving the problem which Figure 7 presents. He not only succeeds in solving the problem of overlapping fairly well, but there is no simplification of the figures, and the left hand figure is now the exaggerated one. Closure difficulty and poor line quality are, however, conspicuous. Thus, we infer that Tom is attempting to resolve his problem of sexual identity, is progressing, but has still not reached success. He is quite anxious and is unable to relate entirely effectively and not without ever-present conflict.

The inference that Tom has not entirely resolved his problem of sexual identity is reinforced on Figure 8, which reveals that although he has done remarkably well on the internal diamond portion of the figure (in contrast to his 1957 performance), there are strong indications of closure difficulty, and exaggeration of the apex portions of the external portion of the hexagon. One might infer that residuals of his homosexual conflict persist, but that he

Figure 2 presents us with a wealth of fascinating data, and we shall select the most prominent features to comment on. Tom's association to the original stimulus that "it's just a pattern and isn't going anywhere", may indicate that he uses denial to avoid the painful reaction which this stimulus evokes. We noted that his response in the Standard Method was indicative of tension in an emotionally charged situation. Now, in his modification, he enlarges the figure in the horizontal plane, and he associates an "anteater" with "wheels" that "could move pretty fast if it wanted to." Thus, we can infer that he is still bothered by interpersonal problems, that he still uses avoidance techniques as a defense pattern, and that he has oral incorporative interests. We see more clearly, from this, Tom's basic egocentric orientation, his passivity, and his oral aggression as primary features of his personality. At the same time, we can infer that because of his originality and relative freedom with this material these trends are being integrated into his more mature personality and that his regression, while it contains some oral features, has not stayed at the oral level but has moved beyond it.

Figure 4 reveals that Tom's previous exaggeration of the curved portion of the figure is not "accidental", for here for the fourth time in his record this exaggeration occurs once again. But here, we see the male symbol, represented as a square, as having attained a superior position (being on top), although precariously balanced, and, according to his association, "It didn't seem to be sliding down a hill so I put an arrow there to indicate where it was going to go if someone gave it a little push". Tom seems to be telling us that his status as a male is not a stable one, that stress ("a little push") would probably cause it to slide, and that his orientation is still primarily a passive one. The sexual-orgastic quality of the association (especially the "sliding") may be indicative of Tom's need for passive sexual gratification.

On his modification of Figure 6, Tom attempts to solve the difficult problem, for him, which an emotionally charged interpersonal situation presents. He deals straightforwardly with this problem by simplifying the problem as two straight, but intersecting lines. Thus, the problem of intersection is met head-on, and

ppropriate, assertive (aggressive) behavior is being used to deal with this situation. He tells us, in his association, that he was dissatisfied with the "wiggly" qualities of the lines, and he defines the problem as one of "crossroads." Tom, therefore, seems to be aware of this problem at a conscious level; i.e., he is able to define it. Moreover, he is able to offer a solution, even though aggression may be utilized too boldly.

He is unable to offer any meaningful association to the original stimulus of Figure 7, but in his modification, he separates the two parts of the figure (a common solution), makes them into "ballistic missiles," but finally, because he thinks his drawings look "too primitive," calls them "firecrackers." He seems to be trying to deal aggressively, again, with the problem of male sexuality, but still feels childlike, and he is fearful of his sexual-aggressive impulses as being too primitive, i.e., too dangerous and explosive. The remnants of his pathological identification with his mother may, thus, be inferred to be present, but he is attempting to free himself from this dilemma. That he has not yet succeeded, now seems to be abundantly clear.

Tom's continuing problem with his sexual identity may be seen even more clearly on Figure 8, and the aspects of this problem which are present in closure derivatives are even more clearly pointed up. He tells us quite directly that the internal diamond in the original stimulus "didn't make sense." Then, in his modification, he strikingly reveals the repetitive feature of this central aspect of his neurosis, by "doodling" all over the sheet in making some seven diamonds—some inside the larger figure and some spilling out around it. A prominent feature of his association to the modification is that part of the association which suggests his feeling tone in connection with it: "This looks like a mess . . ." and ". . . it's an artistic failure." He not only interprets the diamond as being a square but he sees the whole drawing as "a parquet floor." If, as we have suggested, the internal diamond represents a sexual (and more specifically a vaginal) symbol, we can infer that Tom is not yet able to deal with this problem directly. He is threatened, and indeed is almost overwhelmed, by the impact of this symbol upon him, and he tries to work the problem out by

repeating the symbol and by placing it within and outside the larger figure. His solution of the "parquet floor" may have a great many meanings, but one that is very probable is the common associative meaning of floor: something that is stable and that one walks on. This seems to be Tom's meaning (*vide* his previous associations of "mess" and his previous expressed needs for an increased and more stable image of himself). The aggressive qualities of this solution should not be overlooked.

The over-all impression from this total retest procedure includes, therefore, a number of features. The most important general impression is that Tom has made very considerable change since the previous test, some two years ago. The general direction of this change is a progressive one, and in this he reveals that he has defined or begun to define his problems much more adequately, he is much more consciously aware of the general nature of his conflicts.

At the same time, he is much more overtly anxious about them. He has also begun to cathexit more adequately. The egocentric, passive, and oral-anal features of the personality have become more clearly discernible. However, he has also become more spontaneous and more appropriately self-assertive. His sexual identity is still a confusing one for him. One can infer that the previously inferred latent homosexuality, which overlay the manifest heterosexuality, was itself a defense against Oedipal wishes of an aggressive nature. The compulsive defenses have yielded, permitting much more of the creative and spontaneous features of the personality to begin to function. It is difficult to say whether Tom gets along better or worse in the social world, but in terms of his inner balance, he is much more mature. There still remains a great deal of work for Tom to do before he can function comfortably with an essentially conflict-free self percept.

We should like to add one final word. All of the above detailed analysis has been pointed up in terms of its didactic features and of the complex predictive problems. The reader will undoubtedly understand, however, that we have not always indicated the several steps from the data to the inferences and the predictions. For this we hope we will be forgiven in terms of the limitations which a presentation such as this imposes. Although much of the inferen-

tial analysis rests heavily upon the accumulative knowledge that has been acquired concerning both psychopathology and psychotherapy in general, a considerable portion is based specifically upon clinical and research experience with the Bender Gestalt, and upon the Revised Bender Gestalt, in particular. That a great deal of further research is still urgently needed to support and extend the whole diagnostic problem goes without saying.

## THE RORSCHACH TEST

ZYGMUNT A. PIOTROWSKI, PH.D.

**O**ur purpose today is to describe definite and constant rules for inferring overt behavior from projective personality test data. Few would contest the statement known as the principle of interdependence of components, that every projective test component qualifies all others in some manner and degree. The trouble with this principle is that it is very difficult to apply. Moreover, it has not yet been completely worked out in all the necessary details for any projective test, including the Rorschach. We must consequently try something easier though less adequate. In the step by step analysis of the Rorschach records which will be illustrated with Tom's and Dick's test findings, I shall follow the rules of interpretation formulated in my "Perceptanalysis: A Fundamentally Reworked, Expanded, and Systematized Rorschach Method" (1).

As a first step in making our task manageable we might differentiate between indicators of potential behavior and indicators of actual behavior. All of us agree that conscious suppression and unconscious repression are universal human traits and that therefore some potential action tendencies are not fully or directly acted out. It is obvious that we must also consider the independent criterion against which we validate our test conclusions. Even when various projective tests give the same information, the rules of extracting that information from raw test data differ from test to test because each test has unique features, resulting from their unique test stimuli. Consequently, the degree of ease and validity with which information regarding certain specific behavior (especially overt behavior) is inferred does and must differ from one personality test to another.

Limiting ourselves to the Rorschach test, let us identify the most important indicators of potential behavior, i.e., of those action tendencies which determine the subject's role in interhuman relations. The chromatic color responses are among these indicators

because they measure desires to associate with, or dissociate from, others with the intent of a voluntary or forcible continuance or discontinuance of exchange of pleasures and/or pains. In other words, the color responses indicate the degree and quality of being attracted to, or repelled by, others. If an individual produces no color responses, we assume that he is emotionally flat or indifferent. Both Tom and Dick have a high  $\Sigma C$ , 6.5 and 6.0 respectively. They are far from being apathetic. Both brothers are emotionally responsive. At the moment we are speaking only of how strongly they feel, and not of the overt actions which are prompted by their feelings.

In addition to the  $\Sigma C$  we can use the ratio of  $\Sigma C$  (Positive) to  $\Sigma C$  (Negative). We define positive color responses as indicators of desires to associate with others for the purpose of sharing pleasurable experiences with them, and we define negative color responses as indicators of desires to sever emotional relations with others with the purpose of ending unpleasant interhuman relations. The twins differ in their ratios of positive  $\Sigma C$  to negative  $\Sigma C$  (in their first Rorschach records). In the case of Tom the ratio is 4.5 to 2.0, while in Dick's case it is 5 to 1. We would conclude that Tom feels emotionally uncomfortable and fearful when stimulated by others more frequently or in more numerous situations than does his twin.

We can use the chromatic color responses as still another measure, namely, as a measure of the intensity, depth or superficiality of emotions. We can use the following scale. Color responses which refer to objects or processes that are vitally important for survival are indicators of the earthy or most powerful emotional impulses. Examples are: fire, blood, sexual organs, meat, food. Color responses which contain objects artificially created by man indicate the most superficial emotional impulses with the weakest potential driving power. All other color responses indicate emotional impulses of moderate intensity; the most frequent are landscapes, seascapes, flowers, anatomical specimens, and animals. According to this scale, Dick shows the greater diversity in emotional responses. He is capable of both strong positive and strong negative feelings. He can also manifest very superficial feeling reactions which mean little to him and stir him little. On the other hand, Tom's strongest emotional impulses are negative (as suggested, e.g., by the "bloody and spongy lung tissue" and "the geological cut through the earth

revealing different layers of earth"). His positive emotional impulses show only a moderate or average intensity. Thus, it is possible that the negative emotional attitudes troubled Tom more than they did Dick.

We can now turn to another significant indicator of potential behavior, to the human movement responses. They reveal the deep seated attitudes which individuals tend to assume toward others when dealing with them in personally vital matters. Both twins have many M (human movement responses), which suggest that they have given a great deal of time, feeling and thought to the development of attitudes which determine the role they play in vital interhuman relations. Again Dick (with 10 M) seems to be more complicated than Tom (with 7 M). Dick's M can be easily divided into two distinct types. In one type, the human figures execute an expansive and assertive movement, but only with parts of the body. The actions do not involve the whole body. For example, we have women raising their arms but standing still; or just feet, jumping up and down, the rest of the body not being seen; or Marcel Marceau's hands catching and holding a butterfly; or legs trying to move but they stick in mud. Thus, assertiveness and the exhibitionistic wish to be noticed exist as real personality forces, but Dick limits these tendencies even in their wish states of potential drives: even his dreams are limited. He does not display modest reticence in the other type of his M where whole bodies are engaged in passive or compliant movements, as exemplified by the Eskimo who floats down in the breeze; the people leaning against something; and the clown sitting on a tree stump. Dick finds passivity or compliance more acceptable than active assertiveness of his prowess. He is more comfortable when led than when leading.

Tom's M are more of one type. They do not differ among themselves as much as Dick's M do. Tom is competitive, plainly sadomasochistic, argumentative, and assertive, and more frankly exhibitionistic. The role he would like to play seems composed of these traits which are not actually incompatible with one another, but which nevertheless frustrate each other to some extent. Dick shifts from compliance with the will of others to limited assertiveness far more conspicuously than Tom possibly ever could. Tom's

specific attitudes are more predictable than are Dick's, according to this analysis of their M

This difference between the twins is indicated also by their FM, their animal movement responses. Tom's "flying vulture," "bulls taking off upwards," "horses taking off at great speed with front feet flying," suggest that he was assertive, active and aggressive in his early childhood—more so than in his adult years and more than his twin Dick in early childhood. Dick's FM are exemplified by a flat fish swimming along a sea lion keeping his mouth open, an imaginary animal coming out of an imaginary cocoon. These movements are much more quiet, much less expansive and much slower than those we find in the FM of his brother. We infer, then, that the twins differed in their basic personality structures even in their early years of childhood.

Both brothers would like to feel freer inwardly than they do. Tom resents his inner inhibitions more than does Dick. He revealed this by producing four inanimate movements responses while Dick produced only two. The inanimate movement response is defined as an indicator of desirable but unrealizable basic attitudes. While both twins seem to have the habit of psychological self-observation, Tom seems to practice self-observation much more than does Dick.

Let us now turn to the whole responses, i.e., responses covering an entire inkblot. The number of W (whole responses) is a measure of readiness to exert oneself in order to achieve something of importance to others and which society rewards. If there are no W, there is no active ambition and no achievement. In his first record, Dick produced the large number of 21 W. Tom gave 11 W or the number of W expected of an intellectually superior adult. In comparison with his brother, Dick showed the stronger drive for achievement and the greater expansiveness in tackling practical and intellectual tasks.

The F+% is important insofar as it is a measure of the capacity for conscious control primarily over thought processes, but secondarily also over motor behavior. Tom's F+% is almost 100, or very high. This points to accuracy and precision in thinking and in acting. Dick's much lower F+% is 79, this is within normal limits. Dick's thinking, then, is not as meticulous and not as uniformly

precise as Tom's. Tom exercises a greater self-control over his thoughts and actions.

The verbal content of Rorschach responses also contains hints regarding potential behavior. However, content allows only limited inference. We cannot infer from the absence of a certain content in the Rorschach record that the personality trait, associated with the content, is not part of the subject's personality. Some very important traits cannot be excluded simply because the Rorschach record contains no indication of them. Among them are, for example, alcoholism, homosexuality, and personality changes caused by organic brain diseases. When positive evidence of these traits is produced during the Rorschach examination, we are justified (within a margin of error) in concluding that the associated trait is part of the subject's personality. The traits which allow a definite conclusion only when the evidence is positive, but not when evidence is negative, are difficult to measure or are undetectable when they are not prominent, that is, a trait must reach a certain level of prominence before it becomes measurable. The situation does not have to remain that way forever. We must improve our non-test, independent criteria of alcoholism, homosexuality or brain damage if we expect to improve the test's diagnostic power. We lack adequate independent criteria of mild alcoholism, mild homosexuality, and mild organic brain damage.

Another method of improving conclusions drawn from the analysis of the verbal content of Rorschach responses is to relate content to different formal components. Thus, content projected into the F or pure form responses is related to the individual's thoughts, fears or expectations concerning his environment, while content which appears in color responses and particularly in the human movement responses, reflects the individual's own genuine action tendencies. Thus, for example, a sexual idea expressed in a human movement response is much closer to the core of personality than sexual ideas, expressed in form responses. Rorschach suggested that original responses, i.e., those which appear not more frequently than once in 100 records, are of special significance because they shed light upon the individual's most personal traits. This is a sound observation.

records of our twins, we find that they differ greatly in their sexual symbolism

I use six signs to infer homosexual tendencies when the signs are present, and refrain from saying anything about homosexuality if the signs are absent. For practical purposes the number of signs is limited to four because the last two (1, pp 359 360) occur very rarely. Dick has two of the four signs. He produced anal responses in three plates II, VI, and VII. He also was hesitant and inconsistent in identifying the sex of the figures in plate III. We infer that Dick has homosexual tendencies, but how strong are they? In plate VI Dick described the vertical middle portion of the bottom area as "rather rectal, the slit becomes progressively darker as it goes in." Dark or black color, associated with sexual content, frequently indicates guilt with acting-out. This response, by virtue of its statistical rarity and detailed description points to a pronounced interest in rectal openings. Dick gave an original interpretation also of the entire reversed plate VII calling it 'an archeological remnant of a female figure.' He saw only the buttocks and the legs, and commented that there was 'feminine grace to it.' Archeology is the science of antiquities, of things of the past. Dick thus intimated that woman or any activities connected with her body are remote matters as far as he was concerned. Heterosexuality was a thing of a primitive past. Many homosexuals say and possibly believe that they are a more highly developed human species than are the heterosexual men. Dick's homosexual tendencies probably are very deep.

The use of symbolism is always of doubtful value, but if we allow ourselves symbolic interpretations, we find confirmation for our conclusion in Dick's symbolic sexual responses. For example, in plate II he saw 'the bottom of a person jumping up grotesque feet going into socks,' noticing not only the red socks but the skin color of the legs that 'are going into the socks.' In the same plate he had a symbolic anal response 'A fanciful rocket ship discharging a jet propellant, it has that dynamic feeling to it. A jet ejection after the blast.' He saw several tails of different sizes and profiles. Plate VI, top vertical detail, gave him the feel of wood without the bark on it, stripped wood or driftwood. Plate V became 'a root or vegetable growing in the ground, like a funny shaped potato'.

with root hairs, just the root, cut off where it comes out of the ground" An original response in plate VIII referred to a "bird dressed in a fur jacket" The absence of vaginal symbolism in form responses is striking by contrast with the abundant phallic symbolism in both form and movement responses

In Dick's second record, taken two years later, the signs of homosexuality are somewhat different but equally massive

The twin, Tom, also produced anal responses, which suggests homosexual tendencies, but he weakened the evidence by associating anality with women (pointing to anal eroticism in a heterosexual setting) In the first plate he "saw" "buttocks, definitely a woman," and in plate VII "an anus, taking it head on" If we are to be consistent, we must infer some homosexual attitudes At least the potentialities for them are there Tom produced also genital responses, one male and one female Nothing can be found in Tom's human movement responses that would suggest homosexuality In the second record, taken two years later, the evidence is even weaker The number of sex responses dropped The one that was retained, the woman in plate I, is now "behind a transparent shower curtain" There is more indirectness and more discretion The other sex responses disappeared during the second examination On the other hand, the second examination elicited several symbolic answers which can be interpreted as wishes for greater sexual potency In plate VII, there was "a volcano shooting off steam and lava" in the area where he previously had seen "an anus head on" The usual heads in plate VII had "ponytails caught in an up-drift, standing straight up" Tom's homosexual imagery was much weaker than Dick's on both examinations Moreover, Tom associated with it distinct heterosexual ideas and images, which Dick did not do

At this point we might ask ourselves what we mean by homosexual tendencies Perhaps it is best to define them as an indication and result of frustrated heterosexuality In all but a very small number of cases (about 3/1000 in males, according to Dr Hathaway), the etiology seems purely psychogenic There exist, of course, innumerable degrees and varieties of heterosexual frustration, from the mildest to the most severe Only the severe degrees of frustra-

tion lead to overt homosexual practices, and the most severe ones to exclusively homosexual practices. Tom is much less homosexual than his twin. Perhaps Tom's homosexuality manifests itself only in some sexual perversions (as conditions of his most satisfying orgasms) or in his need for some very special type of female sex partners. He shows some disinterest in women. Dick, on the other hand, seems to hate women strongly, and to turn away from them, rejecting them as desirable sex partners.

Homosexuals always have a partial or complete aversion to genital contact with the opposite sex. Nevertheless, some of them have strong sexual needs, are very sensuous, and can be genetically very active and potent. It would seem that Dick is endowed with greater sexual capacities than Tom. Male homosexuality is essentially a state of weakened interest in women, and is not necessarily a state of a weakened sexual appetite.

Of the two, Dick is the one who needs more self-control than Tom. Dick is more likely to get into trouble if he really is a confirmed homosexual.

The evaluation of overt behavior requires the same kind of analysis of the entire record, including all its components, as does the evaluation of potential behavior. Again to make this task possible in the present state of our knowledge, we shall consider components, one by one, concentrating on those which have the greatest bearing upon the active guidance, control, and eventual suppression of potential behavior.

The most important single indicator of self-control is the sum of weighted light shading responses. Both brothers have somewhat smaller  $\Sigma c$  than  $\Sigma C$ . The ratio of  $\Sigma c : \Sigma C$  is 4.0 to 6.0 in Dick's first record, and it is 4.0 to 6.5 in Tom's first record. Automatic self-control, that is a type of self control which does not depend on conscious and deliberate effort, is somewhat inadequate. However, this is not the only type of self-control there is. There exists also a conscious and deliberate self-control, the best measure of which is the  $F+%$ . This kind of control is less desirable than the automatic type, because everything that is conscious and deliberate is much more subject to fatigue than is the automatic or self regulating self-control. Tom's  $F+%$  is higher than Dick's. Thus Tom

knows better how to control and discipline himself. Since Tom has an average amount of drive for his IQ, while Dick shows an excessive drive for achievement, we would infer again that Tom is much more capable of restraining personally or socially undesirable action tendencies than is his twin. Dick expressed a need for a better self-control in an indirect way by making repeated references to the symmetry of the inkblots.

Tom, too, commented on the symmetry of the plates and consequently he, too, felt the need for improved self-control, although Tom had already been well controlled. In fact, Tom was obsessively meticulous. He noticed the degree of adequacy between many of his images and the respective blot areas. In other words, he evaluated the truth value of his thinking while he was thinking, doing it in an exaggerated degree that interfered with spontaneity of thought. He had what I consider to be the classical sign of the obsessive, namely, spontaneous and unfavorable self-criticism of some of his own ideas. For example, he started his responses with a butterfly. Having given this response, he took it back, saying that it was a torn moth rather than a butterfly. He explained that when he had started looking at the plate more carefully, analyzing the shades or colors, and noticing the holes, and then taking all the other details into consideration, he found that the plate did not look like a butterfly, but like a torn moth. In plate II, he saw Australian teddy bears in both gray areas, but ended by saying that it was only the right side which looked like a teddy bear. This kind of spontaneous hair splitting and self-criticism occurred in practically every plate, implying a strong obsessional trend. It was then unlikely that Tom needed increased self-control. On the other hand, Dick was likely to act out his potential drives more readily than his twin, Tom.

It is interesting to note that Dick, as well as Tom, showed practically no shock of any sort. None of the 10 inkblots seems to have caused a significant temporary delay or intellectual paralysis. The initial reaction times varied from 2 seconds to 9 in Dick's record, and from 3 seconds to 6 in Tom's record. One would be inclined to infer from the initial reaction times that neither twin experienced particularly strong anxiety. This would make it prob-

able that neither of them tried to repress their latent tendencies, including their homosexuality. Since the twins differed greatly in potential homosexual behavior, their overt actions would show even more difference since Tom was the better controlled twin.

It seems to me that before we can make further advances in the art and science of predicting overt behavior from projective test data, we must be better able to infer from the test data a more complete and more accurate list of the subject's potentialities.

We all probably agree that it is easier to infer potentialities than actualities. It is far easier to ascertain what the individual is potentially capable of doing than to predict when and how he is actually going to do it. We have not yet completed the job of inferring potentialities. Consequently the inferring of actualities is still "unfinished business," although we have already broken the ground.

#### REFERENCES

1. Piotrowski, Z. A.: *Perceptanalysis: A Fundamentally Reworked, Expanded and Systematized Rorschach Method* New York, Macmillan, 1957.

#### ADDENDUM\*

When the results of re-examination in 1959 are analyzed, there emerge few significant differences between Dick's two records. The greatest and most significant difference is the drop in whole responses, W, from 22 to 14. The implication of this change is that Dick's drive for outstanding personal achievement decreased from a very high level to average level for an intellectually and educationally superior adult. A corresponding change took place in the number of Dick's small detail responses, d. There was one d among 57 responses of the first record, and there were five d among 53 responses in the second. Dick, then, seemed to have reduced his active ambition, and ceased to struggle as hard as he

\*Prior to publication of the symposium proceedings, participants were invited to make additional comments either in regard to Dr. Hooker's discussion or test data not previously interpreted.

had two years earlier. In other respects his two records do not differ significantly.

Tom showed a deeper personality change. As a rule, the human movement responses vary least and last. They pertain to very important personality traits, associated with the basic attitudes which subjects assume when dealing with others in personally vital matters. There was no difference in the quality or quantity (10 on the 1st, 11 on the 2nd examination) of Dick's M, but the quality of Tom's M showed significant changes. This significance has been evaluated in the light of modifications observed in the M of neurotic patients successfully treated with psychotherapy. The number of Tom's M did not differ, being 7 and 6 respectively. The first time Tom interpreted plate IV as "a monster coming this way, at you." The second time he observed calmly: "I remember the last time I looked at it, it seemed very threatening. If I saw it (plate IV) for the first time, it would look like some kind of vine hanging down, something you might see on a weeping willow." We would infer from this difference in handling plate IV that Tom's sadomasochism weakened. Another M change corroborates this alleviation of aggressiveness. During the first examination Tom saw in the sides of the top gray in plate X "people from Mars, arguing with each other." The second time, he interpreted the same area as "little fantastic creatures in a comic strip, saying 'lead me to your leader, I am from outer space'; jabbering, talking to each other in outer space language." The creatures stopped arguing with each other and began to talk and cooperate with each other. There was also a human movement which supplanted an inanimate movement. During the 1st examination the patient saw, in plate IX, "a fountain with two dragons on either side (in no motion or activity); the water was coming out of deep earth." This inanimate movement was changed into a human movement, a friendly, enjoyable and social scene; two human-like "dragons, one on each side of a fountain; drinking the water, sort of enjoying each other."

However, Tom's anxiety states seemed to have become more acute, if not more frequent, despite the basic improvement indicated by the human movements. This conclusion is drawn from the very great plate VII shock (IRT 40 seconds) which was absent

in the first record. The longest IRT in the first record was only 6 seconds (on plate VI). Apparently his ambivalence concerning psychosexual relations with women increased during the treatment, possibly because of his improved insight. He probably became conscious of the unsatisfactory and neurotic relations which he had had with women. Two years earlier he seemed to be less troubled by this problem. It is possible that he began to miss a more adequate heterosexual gratification, as a result of decreased aggressiveness, weakened inhibitions and strengthening of personality. The decrease in the absolute and relative number of negative color responses, which are a measure of the desire to dissociate from others in order to sever unpleasant emotional ties with others, was in keeping with other noticeable personality improvements. Fear and hate of others diminished.

The signs of homosexuality ("inadequate heterosexuality") disappeared from Tom's second record. He did not repeat the two anal responses from the first record, he did not hesitate regarding the sex of the plate VII M figures, and he no longer mentioned "the bullet shot from a gun" in the bottom sexual area of plate VII. Thus the chances of satisfactory psychosexual relations with women have improved, although the patient still was tense and neurotic about them. On the other hand, the indications of homosexuality in Dick's records did not undergo any significant change in strength or quality.

The second Rorschach record of each twin bore a far greater resemblance to his own first record than it did to either record of the other twin. Nevertheless, the similarities between the twins were strikingly greater than between brothers who are not twins, let alone between two strangers.

# DEVELOPMENTAL HISTORIES OF THE TWINS

ARTHUR C GARR, PH D

**A**lthough the test protocols of the homosexual twin and of the heterosexual twin were identified, no other clinical data were given to the symposium participants other than indication that Tom, the heterosexual twin, had requested and received psychoanalytic treatment between the time of initial testing and subsequent reexamination two years later. However, in order to enable our discussant to relate the psychological test interpretation to the clinical material, the following developmental data on the twins were made available to Dr. Hooker.

## DICK AND TOM

Dick and Tom are 31 year old identical twins who were born in a medium sized European city, where they lived with a sister and their parents until the age of eleven, when the family was broken up temporarily because of national, religious, and racial discrimination. At the time of initial testing, Tom, the heterosexual twin had requested psychiatric help for complaints of depression, difficulty in relating to others, and job dissatisfaction. Throughout Tom's subsequent psychoanalysis, Dick, the homosexual twin, maintained that apart from reality problems, there was nothing about his emotional adjustment which concerned him sufficiently to warrant any psychotherapeutic assistance.

Both clinically and in psychological tests, Tom appeared less well integrated, more depressed and anxious, less productive and creative and less satisfied with himself than did Dick. Tom expressed greater dissatisfaction with his body and body parts, wishing that such things as his eyes, wrists, chin, shape of head, height, penis, waist, hair, and trunk could be changed. There is general agreement from all sources, including reports from the twins' parents, that Tom is much more dependent than Dick, and that he

turned to Dick for help in such things as making friends and getting jobs. Dick has undoubtedly been the more successful and productive in his chosen profession.

### Dick—The Homosexual Twin

(This is a summary of 24 hours of recorded interview with Dick, for which he volunteered.)

Dick is the active homosexual of the twins. He has never had heterosexual experiences, although for a short time he did engage in more heterosocial experiences than he has in recent years. He is at present living with a homosexual partner in what he hopes will be a permanent relationship. He states that he is happily adjusted and that he feels he has no problems of "real depth."

Dick was the first born of the twins. He states he was weaker than his brother, and that he had received extra care and protection in his early years. This weakness was presumably due to a heart condition (never confirmed). He has only a vague memory of his first 5 years of life, but believes he and his twin were cared for mostly by maids, seeing little of their parents during this time. For as long as he can remember, he feels his mother played the aggressive, dominant role in the family, sheltering the father from any unpleasant reality. He recalls that she would frequently state, "Don't tell that to your father—you know how excited he gets." The sister, one year older than the twins, is singularly absent in Dick's accounts of familial experiences.

Dick's earliest memories are of his fifth year. He recalls his earliest experience as occurring about this time. "We were on a walk, my brother and sister and I, and she fell in the river—some body fell in the river—I think it was she. There was a lot of yelling and screaming. The seriousness of it was the immediacy of the thing." At this time he began to show a number of difficulties, including nail biting, temper tantrums, stuttering and nightmares. The latter persisted until the age of 8 or 9. He reports that Tom showed none of these difficulties. The children slept in the same room, with the twins sharing one bed. Dick would frequently dream that people, fantastic figures, were coming to get him. He would awaken, frightened and crying, and would then be taken into his mother's bed. He reports periods in which he didn't know

if he were awake or asleep, when he felt he was about to be overtaken by a big, square, transparent mass that would come rolling toward him. He remembers that his speech problem continued until he was about 11.

Dick began kindergarten at the age of 5, when Nazism was becoming popular in the country of his birth. Boys began to wear arm bands signifying party allegiance, and for the first time the twins felt excluded from their peer group. They also felt "different" because their clothing was made by the mother, and had what Dick calls a "too precious" and "peculiar" appearance. Dick feels that Tom undoubtedly had the same feelings, and states they had no sense of individuality until the age of 16, after the completion of high school. It "felt like Tweedle Dum and Tweedle Dee . . . just like a carbon copy."

Dick recalls at 8 or 9, a "trauma": "My brother and I were visiting a friend of the family on bicycles. Our parents didn't like us to ride bicycles. There was a fair in town. My knee and finger were cut and later became infected. I had also chipped my tooth. I couldn't admit at home that I had fallen off a bicycle. I told them I was tripped by a kid. I felt guilty and was angry for having to make up a story. I was sick a couple of weeks, probably sicker than I should have been." He also recalls as a "trauma" the time his brother "beat the shit" out of him at the age of 9 because he had teased him. Dick's references are frequently made in anal terms. He remembers another experience at this age, when he was told of a boy being disrobed by other boys in the woods. He wished he could have been there, but felt that this wish was not shared by his brother. Nightmares continued during this period.

School life was becoming more Nazified. Since the family was half Jewish, they were given the privilege of "passing," although feelings of isolation arose because of non-acceptance as either Jew or Christian. At the age of 11, after the father had been able to leave the continent, the twins were sent to England for what was to become two years of schooling. Life in England is recalled in ambivalent terms. One joy was the similarity of everyone's dress, so that the boys no longer felt conspicuous. Dick continued piano lessons; Tom sang. There was insecurity about money, however,

and Dick reports engaging in petty theft for comic books and movies until he was caught and given a verbal reprimand, which he says made a great impression on him and "removed the need to take money."

At the age of 13, arrangements were made for the boys to join their parents, both of whom were then in the United States. On the boat, a young steward in play with the children began "feeling everybody up," which Dick recalls as an exciting experience. Dick's first overt homosexual experience occurred during his first year of high school, when another boy masturbated him. He had no guilt about this pleasurable experience. A short time later, another boy, about 3 years older than Dick, performed fellatio on him, an experience which he found amazing and shocking. He reports that in all early experiences, his partner had been the one to initiate the activity. A period at summer camp at the age of 14 provided much homosexual contact. These experiences were not confided to the brother, although in general they did share confidences. There has been only one homosexual experience between the twins, recalled by Dick as mutual masturbation which he believes Tom initiated. (This experience is recalled differently by the twins.) Dick states that the experience was not particularly enjoyable, perhaps because it was not like two different people.

Upon completion of high school at age 17, Dick entered a music school, whereas Tom began college training. During the first year of his separation from Tom, Dick enjoyed a new sense of freedom. To avoid being drafted into the Army, the twins volunteered for the Navy the following year, and served in the same city for a 13 month enlistment. Although Dick had no homosexual experiences during his first year in music school, he had numerous contacts while in the Navy. Upon discharge from the Navy, both twins returned to their respective schools. In what is described by Dick as an unjustified charge, he and five other boys were dismissed from school because they presumably had attended a party where homosexual activities occurred. Although the charge was never explicitly made, the school director, when asked for an explanation, also referred vaguely to the "Communist business," and would not reconsider dismissal. Dick describes the charge as a

very unfair one, stating he never attended such a homosexual gathering, and that at this time he had not accepted homosexuality as a way of life. He became somewhat depressed when his letters of protest to the school were ignored, and he found himself both out of school and without a job.

Following a short period at home, Dick worked as a theater usher, conducting music on the side. This was in New York, where Dick found a sense of freedom not previously experienced. During his first summer in New York, through discussions with an old friend from music school, he achieved a greater degree of acceptance of his homosexuality. That fall, he found a room in a boarding house where many other homosexuals lived. In subsequent experiences, he concluded that being a homosexual didn't necessarily mean being like many homosexuals, the "feminine, droopy wrist, and the chatty, gossipy type."

Employment during the next two years included work in a music store and a publicity firm. An opportunity came for a job with a large company associated with musical interests. Dick has continued with this work with eminent success. During this time he met the man with whom he is now living, and has maintained this relationship for 8 years, exclusive of a six-month separation. Sexual activities are predominantly mutual masturbation, but include oral and anal activities as well. It appears that this homosexual partner, who is approximately as old as Dick, is excessively dependent on him. (Recent clinical information revealed that Dick's partner made an abortive suicide attempt when faced with a forced separation for business reasons.)

Nine years ago, Tom also came to New York. Dick describes Tom at this time as a "bore," "not pleasant with people," and "inconsiderate." Through a mutual friend, Tom went into therapy, an experience later leading to psychoanalysis. At the time of retesting, following Tom's psychoanalysis, Tom and Dick live in the same apartment house. Dick describes Tom as being a "much more human" person as a result of therapy. He feels Tom is still dependent on him.

At the completion of 24 hours of interview, and at the time of retesting, Dick maintained his sexual orientation. In thinking

about why he is a homosexual, he believes it may be that his mother, described by him as "cold, tactless, and preoccupied with herself," may symbolize all women to him. However, he is not interested in exploring the psychodynamics of this relationship.

### **Tom—The Heterosexual Twin**

*(This is a brief summary and abstract of Tom's free associational material from approximately 300 hours of psychoanalysis.\*)*

After a short period of psychotherapy, Tom entered psychoanalysis at the age of 29. His complaints were feelings of depression, difficulty in establishing deep and lasting relationships, and dissatisfaction with his achievements. Although he experienced a homosexual seduction during adolescence, Tom has been consistently heterosexual since then. At the time of initial testing he reported some potency difficulty in his heterosexual relationships, which have been frequently with older women. In the course of psychoanalysis Tom married a girl of his own age, and at the time of re-evaluation appeared to be making a satisfactory adjustment to marriage.

In spite of the apparent similarity in the major life experience of Tom and Dick, a striking difference in the emotional atmosphere encountered by them in early life became delineated in the course of Tom's psychoanalysis. Tom had always been told that he was responsible for his mother's ill health by "jarring her insides" during his birth. Because of his presumed heart difficulty, Dick became the object of the mother's protection and concern. He was differentiated from Tom by a more prominent split existing from birth in Dick's lower lip. In Tom's psychoanalysis, the paternal grandmother and a nursemaid emerged as important figures in his early childhood, the grandmother as the only accepting person, and the maid as an early sexual fantasy object and symbol of femininity and maternal feeling. Tom's earliest memory stems presumably from approximately 3 years of age: "I remember one thing. Mother, father and my brother—we all took a bath together. I would sit on mother or father's knees and they would sing a song about a river—the Isar or the Danube."

\*The writer is indebted to Dr. John D. Rainer for the data on which this summary is based.

It became apparent in Tom's psychoanalysis that early in life he had begun to repress his jealousy and rage toward his brother, as well as his fear and hatred of his parents. The father was away from home a great deal, and was considered weak, childish, and a failure. The mother was described as cold, inhibited, nervous and ailing. Tom hid his reactions to them by retreating to his room. He talked very little at home, and what was to become a life-long feeling of alienation, poor self-identity, incapability, and periodic depression began.

Both twins came to the United States by ship at the age of 13 to rejoin their parents. It was on the ship that Tom, naive about sex, was masturbated by a sailor who explained, "This is what you do with girls." It was Tom's first orgasmic experience, and he recalls that he found it pleasant. At the same time he felt ashamed, and he told no one about this experience until much later. In the course of his analysis, Tom said that he had doubts of his manhood as a result of this episode, and that these feelings were revived 8 years later when he found out that his brother was homosexual. Before the age of 13, his only sexual memories had been laughing at mysterious goings-on in a lover's lane, and of his sleeping in the same room as his sister until the age of 3. Masturbation continued through adolescence with guilt.

During his high school days in the United States, Tom played with a group of boys his own age. When an occasion of mutual sexual exploration between these boys was brought to the attention of Tom's father, the father told Tom, with embarrassment, that such things should not be done. Although the father, in interview, does not recall this episode, the prohibition was seemingly of crucial significance in deterring Tom from future homosexual experiences. In general, there was a complete absence of sexual discussion or sexuality in the home. About this time, Tom had his first sexual relationship with a girl who lived next door, stopping short of intercourse. Tom went away to college shortly afterwards, where for the first time he felt completely happy.

College was interrupted when the twins were inducted into the Navy at the age of 18. During the next two years Tom became aware of the fact that Dick did not go out with girls. At the same

time, Tom began a relationship with a friend of his sister's, who finally "let him "seduce" her. After leaving the Navy, he entered a midwest college and later graduated with honors. During this period Dick wrote Tom telling him of his homosexuality, and Tom wrote back encouraging Dick to try dating girls. At the same time he felt compelled to send money to further Dick's career.

Towards the end of Tom's college years, he met a girl with whom he had satisfactory and frequent sexual relationships, and to whom "for some reason or other" he became engaged. Not wanting to marry her, however, he broke off this engagement. There followed a period of painful and unsatisfactory employment interviews in which the patient did not know what he wanted, did not think he was worth anything, and could not present himself in a favorable light.

Tom finally obtained a respectable clerical job with a large corporation, and began a period of confused sexual and personal relationships. He lived in the same rooming house as Dick, where he felt both inferior to his brother and out of place in the odd and strange homosexual world of which his brother was a part. He began having sexual relationships with a woman twice his age, and finally moved into her apartment. Simultaneously, he had an affair with a girl of his own age who lived in his building, and for the first time had symptoms of impotence. Following an affair with still another older woman, he entered a brief period of psychotherapy with a social worker. Tom entered psychoanalysis two years later at the age of 29, having experienced continued and increasing difficulty in making friends, and finding it impossible to define the role he should take in relation to other people.

Early in Tom's psychoanalysis, it became evident that the patient considered his weaker brother to be the mother's favorite. Tom appeared to have turned away from the mother, seeking maternal and womanly care from a grandmother and a nurse, while repressing all hostile and competitive feelings toward his brother. When he found that girls preferred him to his brother, he became anxious, self derogatory, and depressed. Nevertheless, instead of his brother's fear of women, he manifested a counter phobic "Don Juan reaction," most of his objects being older or married women.

There was evidence from the patient's transference and associations that in this behavior he was reconstructing his particular family constellation. To avoid the guilt he would experience if he acknowledged that his mother had favored him, he left her completely to his brother. He repressed his rage and rivalry to his brother and father. Seeing the father as a weak person, Tom was unable either to express his hostility to the father or to identify with him.

During psychoanalysis, Tom achieved a greater independence from Dick, after facing his own aggression and jealousy toward him. Tom also found in the analyst a more consistent and dependable father-figure. During the analyst's vacation, Tom married his first girl friend. The marriage appeared to be a successful resolution of the patient's problem of confused relationships, although for some time it brought forth a recurrence of old patterns. It was believed, however, that the major problems were successfully worked through during the next year and a half of psychoanalysis.

Some of the bases for Tom's heterosexual solution to his psychosexual confusion became clear in the course of his psychoanalysis. Tom had seen the father as a non-forceful figure, but as one who nevertheless directed him away from adolescent homosexual play. The memory of a nursemaid whose femininity and body attracted him as a young boy, and a reaction formation against the shipboard homosexual seduction and his brother's homosexuality combined to swing the balance. After working through his frustrated rage toward women, he was able to become a tender and considerate husband.

On the other hand, evidence also was presented in Tom's psychoanalysis of the extent to which the mother apparently encouraged and reinforced Dick's overt homosexuality, both by denying its existence, and also by using his disinterest in girls as a model against which to compare Tom's behavior unfavorably. While actively discouraging the twins in their contacts with girls, the mother continued to visit Dick and his male paramour in their apartment. Meanwhile, she frequently criticized Tom, saying, "Why aren't you like your brother?" The parents' attitude toward

Tom's marriage has been a pessimistic one, with expressed feelings of disappointment presumably in relation to the girl's family.

### SUMMARY

In summary, Dick and Tom are 31-year-old identical twins. Dick has been exclusively and overtly homosexual for many years. Tom, except for isolated adolescent experiences, has been consistently and overtly heterosexual. At the time of initial testing, Tom had requested psychoanalysis for complaints related to depression and role confusion. Interpretation of the existing evidence suggested that Tom was less well integrated, more depressed and anxious, less productive and creative, and less satisfied with himself than was his homosexual brother. At the time of subsequent re-examination two years later, on completion of Tom's psychoanalysis, a greater integration of defenses was clinically apparent in Tom's adjustment. Dick continued to maintain that he had no problems which he felt would warrant psychotherapy.

## DISCUSSION

EVELYN HOOKER, PH D

We are indebted to Dr Carr for arranging this symposium and making available the extraordinarily rich projective test material of identical twin brothers with their divergent patterns of overt homosexual and heterosexual behavior. Although we do not know how often such 'experiments of Nature' occur, according to Kallman (2) they are quite exceptional. In commenting on 40 monozygotic twin pairs he asserts (2, pp 290-291) that 'this series does not include a single co-twin of an overtly homosexual person standing at least midway on the homosexual scale, who is classifiable either as entirely heterosexual or as homosexual below group 3. The majority of one egg pairs is not only fully concordant as to overt practice and quantitative rating of their aberrant sex pattern but they even tend to be very similar in both the part taken in their individual sex activities and the visible extent of feminized appearance and behavior displayed by some of them'. A single exception (we know of others) gives us unusual opportunities for examining the relationships between personality dynamics as revealed in projective tests and overt behavior, since, as Henry points out 'we do suppose that they were unusually intimate in their developmental years and hence that the resolution of sexual identifications was in some sense a joint venture'.

A careful reading\* of the excellent papers in this symposium makes it immediately apparent however, that the authors' task was structured in such a way that the particular test protocols were not the primary focus of attention. Instead, they were asked to concern themselves with the theoretical issues and methodological problems involved in predicting overt behavior from projective

\*Because all of the papers were not made available for careful study before the symposium this discussion was written later and represents an extended elaboration and modification of remarks made at the time as well as the addition of considerable new material.

test materials. Each author was then free to use the particular double set of test protocols (test and re test from each twin) in any way he chose.

Since the protocols were clearly labelled 'homosexual' or 'heterosexual,' prediction of sexual object choice was not involved but within this general framework the predictive field was completely open. As a result, we have four remarkably varied and idiosyncratic patterns of handling the data. These constitute a valuable contribution to our understanding of the work ways of distinguished projective test analysts.

Evidence is accumulating that the validity of prediction of either overt or covert behavior from projective tests leaves much to be desired. As Little (3, p. 287) expressed it, in a symposium similar to this one, a year ago, "It is somewhat embarrassing to have to say that the published evidence on projective techniques indicates that they have either zero, or at best, very low positive effective validity indices. Even in those studies with the most positive of results, correlations are of an order of magnitude which make predictions for the individual largely a waste of time." Little and Shneidman (4, p. 26) have more recently demonstrated that the reliabilities of interpretations made from psychological tests are so low that 'it would appear that efforts to establish the 'validity of our current psychological techniques . . . are premature until adequate interpreter reliability has been established.'

In the light of this depressing evidence, let us look at the papers in this symposium. None yield completely to the prevailing pessimism about the task of prediction, despite their recognition of its inherent complexities and hazards. Instead, they have attempted a formulation of the problems involved in stating relationships between (a) personality dynamics (described in such terms as motive systems, conscious or unconscious, endogenous or intrinsic, processes), (b) situational factors, and (c) overt behavior. What they seem to be saying to projective test workers is "Yes, it is extraordinarily difficult to predict overt behavior—especially since we don't even know the parameters of such prediction. Let us not completely surrender to pessimism. If we can become more sophisticated about the variables involved and learn how to weigh

the clues obtained, recognizing that predictions are contingency predictions, we can improve our accuracy. Even though projective tests 'work' best for the discovery of potentialities (Piotrowski), covert processes (Henry), intrinsic processes or enduring intrapsychic systems (Forer), or unconscious processes (Hutt), nevertheless we do obtain clues to actualities, or to overt, extrinsic, or conscious processes." Furthermore, as Hutt phrases it, "we can't have one without the other . . . if we conceive of all overt behavior as the end product of internal homeostatic processes designed to offer the individual maximal adjustment . . . to external as well as internal stresses."

The critical question is how to predict overt behavior from the covert. Forer's answer is that in the Sentence Completion test "first-person items are more closely congruent with extrinsic prediction and are thus more nearly isomorphic with social situations and public behavior, whereas third-person items are more likely to evoke responses representing deeper psychic levels . . . we look to the disparities between first- and third-person responses for indications of relationships among psychic levels and as cues to modulating the ego functions which are so necessary to making extrinsic predictions." Further, each item is considered "as a potentiality for action"; and, by clinical comparisons on such dimensions as (a) situational determinants of affects, wishes, and actions, (b) thresholds, (c) forms, and (d) intensity, relative probabilities of action are estimated. Forer then proceeds to give us very specific predictions about the twins, as illustrations of his particular logic about the relation between intrinsic and extrinsic processes.

Henry, while stating that "internal dynamics do have something to do with the prediction of behavior," does not attempt to give us principles or methods for inferring one from the other. Instead, he illustrates a specific logic for inferring the sexual orientation from the TAT by focussing on an analysis of "ego and role levels" which, to this discussant, seems to combine both internal dynamics and overt behavior.

Piotrowski answers the question by stating that our estimation of the actualities (overt behavior) will be more accurate if our knowledge of potentialities is increased, and, more specifically, by pointing to the indicators of "active guidance, control and eventual

suppression of potential behavior" in the Rorschach. He makes few specific predictions about overt behavior, however, asserting that "we have not yet completed the job of inferring potentialities. Consequently, inferring of actualities is still unfinished business, although we have broken ground."

Hutt illustrates his particular method of "the development of sequential hypotheses" with Bender-Gestalt material from the homosexual twin only, making a number of predictions about overt behavior. He does not, to this reader at least, clarify the process by which he goes beyond the basic analysis of the "underlying source traits" to the specific predictions of their manifestation (or lack of it) in overt behavior.

The reader who has been impressed by the skill with which the most gifted clinicians are able to give us analyses of personality dynamics from projective tests, but who may also have been impressed by research evidence of the failure of these tests to give us predictions of effective validity, will not, I think, learn any strikingly new general principles or methods for correcting this discrepancy. Since clinical practice is always under the pressure of service demands, the likelihood is that clinicians who read these papers will pick up new clues, as well as new cautions, which will modify their own procedures. Forer's suggestions about discrepancies in levels, and their relation to overt behavior, are couched in sufficiently operational terms to be capable of being tested. In the other papers we do not see sufficiently detailed nor operationally defined suggestions about the relation between personality dynamics and overt behavior to permit testing procedures, although the theoretical discussions are excellent and informative.

Four different methods; four different clinicians; four different tests! Are we justified in evaluating the predictive power of the method or of the test used by comparing the pictures of personality dynamics and overt behavior with the biographical data? The answer is in the negative, for many reasons. Among these are: (a) lack of enough biographical or analytical material to serve as a criterion; (b) the obvious differences between the tests, in terms of structure and stimulus-pull; (c) the influence exerted on our clinicians by their knowledge of the overt patterns of sexual behavior, as far as preferred object of sexual choice was concerned,

and the fact that the heterosexual twin had undertaken psychotherapy; (d) lack of a common framework of predictive language; (It would have been helpful if the four clinicians had used a Q-sort of the same descriptive items of overt behavior. One would then be able to make a direct comparison of their statements about the twins) (e) the fact that striking success or failure in a single instance may be a chance occurrence and have exactly nothing to do with the predictive power of the method or test in question. In any critical test of prediction, it is obvious that all of these factors would have to be controlled.

Nevertheless, since the authors have been courageous enough to make some predictions, and since, whether valid or not, their procedures are being used in daily clinical practice, I should like to compare their pictures of the twins. If gross discrepancies or striking congruence occur, it may be valuable to examine these in some detail, especially since we so rarely have the opportunity of looking at test material from identical twins with divergent sexual patterns.

That there are special problems involved in predicting sexual adjustment is documented by Murray (quoted by Henry) in the finding of a negative relation between the overt and covert for such a need as sex. Henry points out, "Successful prediction based on internal dynamics assumes that we know what pattern of dynamics, once found in the case, to label 'heterosexual' and which 'homosexual.' It presumes, in other words, a matching of dynamics found in an individual case with some 'norm' of dynamics for a particular personality group. It is apparent, I believe, that, except in certain extreme and/or special homosexual groups, our knowledge of the varieties of dynamics involved in homosexual life-styles (not to mention heterosexual ones) is insufficient to make a predictive venture successful." Piotrowski is also concerned about this problem, as is evident in his statement that "we must improve our non-test, independent criteria of homosexuality if we expect to improve the test's diagnostic power." Forer, recognizing the complexity of the problem, suggests a wide range of situations which must be taken into account in predicting overt homosexual behavior from "homosexual personality dynamics." Although it may be assumed that each author has some cognitive model of what constitutes

homosexuality, Piotrowski is the only one who makes his model explicit. He says, "We might ask what we mean by homosexual tendencies. We would define them as an indication and result of frustrated heterosexuality." I am not sure how much this statement advances our knowledge since I submit we do not know what heterosexuality is—beyond the obvious fact that it involves attraction to opposite-sexed persons. And, further, even if we knew the parameters of heterosexual object-choice, it is an assumption still to be proved that homosexuality is frustrated heterosexuality.

An examination of the protocols will show the reader that our problem is made more difficult, and, I think, more interesting, by the remarkable similarity between any given pair. As Henry has commented, "The manifest similarities in content are so great as to suggest a hoax." They are much more similar, indeed, than test protocols which I obtained from a pair of identical twins, both of whom were homosexual! And I might add, lest the issue not be sufficiently confused, it was a frequent occurrence that judges, comparing matched protocols of heterosexual and homosexual subjects, in a study reported previously (1), commented that they were so similar that they could not make a choice between them unless forced to do so.

In comparing the predictions made by the four authors, we will omit those of Hutt, since, unfortunately (for our purposes), he did not use material from the homosexual twin. The other three (Rorschach, TAT, and Sentence Completion) are in essential agreement that the heterosexual twin (Tom) is more disturbed and more uncomfortable than his homosexual twin (Dick). Henry puts it positively, that the homosexual twin has a firmer sense of ego identity and life purpose than has his brother. To be sure, our authors knew that Dick had been in psychotherapy, and, as Henry makes explicit, one could derive the inference of the better adjustment of Dick from this knowledge—although many people who are not well adjusted do not seek psychotherapy! One should not minimize the influence of this knowledge on the inferences drawn by our test interpreters, even though they show us the steps by which they derive the inference from the test material. In fact, the more skilful the clinician, the more he does, in fact, make use of clues extraneous to the test material—and rightly so. Our clinicians did

not know, however, that, to quote Carr, "Both clinically and in psychological tests, Tom appeared less well integrated, more depressed and anxious, less productive and creative, and less satisfied with himself than did Dick." Thus they are able successfully to predict the degree of comparative disturbance.

They also agree—and in this Hutt concurs—that Tom's heterosexual adjustment is not altogether secure. Forer finds that "although Dick is more likely to act out homosexuality" he "would not predict that Tom might not have homosexual impulses," and that he is likely to seek older women as sexual companions. Piotrowski speaks of Tom's "disinterest in women" and says that "we must infer some homosexual attitudes if we are to be consistent. Although he is less homosexual than his twin, perhaps the homosexuality manifests itself in some perversions, or the need for a special type of sex partner." Hutt also finds that Tom has "fairly marked conflict over homosexual tendencies"; that "this problem lies at the core of his difficulties and insecurities in interpersonal relationships: he is really unsure of his sexual identity and over-compensates with apparent masculine behavior to mask this problem from himself." And, finally, Henry describes Tom as "technically heterosexual, preoccupied with his unsuccessful effort to resolve his horror of maleness by an overdetermined relation to women who are apt to be older and more maternal." We know from the analytical material that Tom's relations with women are disturbed, manifesting a "counter-phobic 'Don Juan reaction,' most of his objects being older or married women."

Since Henry restricts his predictions largely to role-behavior in the sexual sphere (although giving us a good bit more by way of dynamic underpinning), comparisons of specific predictions in other areas can be made only between the Sentence Completion and the Rorschach. (Hutt, as already pointed out, does not analyze the material from the homosexual twin.)

Both Forer and Piotrowski agree that the heterosexual twin is less likely to act out, that he has greater self-control but that he is in greater conflict. Our biographical data are sufficient to validate the prediction of not acting out homosexuality and of his greater conflict. Forer and Piotrowski appear also to agree in the comparative predictability of behavior of the twins: Piotrowski

finds the heterosexual twin to be more predictable; Forer also finds him to be more predictable in extrinsic behavior-less so in intrinsic.

The greatest apparent disagreement among our predictors is found in the description of the behavior and/or dynamics of the homosexual twin—a state of affairs which I do not believe is accidental or without importance. I would like to examine it in some detail. A comparison of the three personality pictures of the homosexual twin is not an easy one to make. I approach the task with caution, because the language used by the three clinicians is not identical and therefore permits my interpretation to distort the original intention and meaning. I have tried very hard to minimize such distortion, but may not have succeeded.

The first behavioral dimension which I want to examine (involving both covert and overt levels) is that of assertiveness vs. passivity. Henry finds that Dick is the "active male" and has taken over for himself the "assertive male elements" (from an incorporated father hostility). Piotrowski, on the other hand, finds that "passivity and compliance are more acceptable than active assertiveness of his prowess," although "assertiveness and the wish to be exhibitionistically noticed exist as real personality forces, but Dick limits these tendencies even in their wish states of potential drives even his dreams are limited." "Dick shifts from compliance with the will of others to limited assertiveness far more conspicuously than Tom possibly ever could." Piotrowski also speaks of Dick as having "the stronger drive for achievement, the greater expansiveness in tackling both practical and intellectual tasks." It should be noted that he is speaking of potentialities—not overt behavior. When he does speak of overt behavior, he does not refer specifically to assertiveness or passivity. However, since Piotrowski predicts that Dick will be more likely to act out his potential drives and that he limits assertiveness even in its wish state, one may legitimately infer that he will be, in general, more passive than active or assertive, except with respect to "practical and intellectual tasks." Forer does not use the terms "assertion" or "passivity." He does, however, speak of the homosexual twin as having "a higher threshold for accepting wishes for dependency and emotional close-

ness," "relative independence from situational determinants," and a lower "threshold for anger and other forms of acting out."

Thus neither Forer nor Henry sees Dick as an essentially dependent or passive character but, rather, as assertive in a masculine way, or at least with minimal manifest dependency. If Piotrowski sees him this way, he does not say so explicitly. Instead he appears to see him as passive and compliant in interpersonal relations (I assume), although having a strong drive for accomplishment in intellectual and practical tasks—that is (I assume), in impersonal situations. If this inference is correct—and I am by no means sure that it is—there is a discrepancy between the TAT (as used by Henry) and the Sentence Completion (as used by Forer), on the one hand, and the Rorschach (as used by Piotrowski).

In the biographical material we are told that Dick is eminently successful in his occupation and that, as we have noted before, he is more productive. We are also told that Tom is much more dependent. Apparently, the predictions from the SC and TAT are more accurate than those from the Rorschach, with respect to assertiveness vs. passivity in interpersonal relations; and all three tests are equally good as predictors of assertiveness or mastery in work situations. If, as has often been said, the Rorschach taps deeper psychic levels than do the other two tests, the first of these predictions does not come as a surprise, since basic tendencies, as revealed by the Rorschach, may be disguised in overt behavior. How, then, can we account for the second prediction. Perhaps the Rorschach, less structured in terms of human configuration, allows us to speak with less certainty about interpersonal situations than impersonal ones, such as work-accomplishment, although work is not often devoid of interpersonal factors. We must also add that we are not told, in the biographical material, anything about the interpersonal relations between Dick and his homosexual male companions, with respect to assertiveness or submission.

The second dimension on which there is apparent disagreement involves Dick's attitudes toward women. According to Henry, "He has neutralized all female cathexes but without binding resentment . . . relating to females only in formal role-defined ways." Forer describes him as "hating women," rejecting "love and marriage," and "ridiculing convention." Piotrowski also de-

scribes him as hating women. Thus, in this case, the Rorschach and the Sentence Completion agree in affirming that Dick has strong negative attitudes toward women, whereas according to the TAT this is not the case. Referring to our criterion data, the biographical material, we are told only that "In thinking about why he is homosexual, he believes it may be that his mother, having so many qualities he dislikes, might have come to symbolize all women." This doesn't help us much. It tells us that he dislikes many qualities in his mother—yet we are told that he is affectionate and generous with his mother and are not told whether he does have friendly, if asexual, relations with other women. Invoking the explanatory principle which we used in the previous case, of the Rorschach tapping deeper psychic levels, does not help us much, either, since in this case it is the TAT which conflicts with both the Sentence Completion and the Rorschach.

A third dimension on which there is disagreement is that of emotional responsiveness, with its implications for closeness of emotional attachments. Henry finds that Dick has 'special open areas of positive identification in the male peer area both as regards work and ego oriented activities as well as affect and impulse activities. He thus relates to males as the only real objects of affect and ego relatedness.' Forer finds that he sneeringly rejects the need to be loved most of the time, avoids enduring relationships and emotional closeness, is likely to cruise homosexually rather than establish continuous relationships." Piotrowski finds him to be 'emotionally responsive, and showing greater diversity in emotional responses' (than his twin). 'He is capable of strong positive and strong negative feelings (positive feelings being defined as the 'desire to associate with others for the purpose of sharing pleasurable experience with them and negative ones as 'the desire to sever emotional relations with others, with the purpose of ending unpleasant interhuman relations). He is more emotionally comfortable when stimulated by others.'

Thus, while he is found as rejecting close emotional attachments in the Sentence Completion (and the language used leaves us in no doubt), the TAT affirms his capacity for emotional attachments to males, although not specifying the intensity and degree of closeness, and the Rorschach describes him as being capable of

strong positive emotional reactions (as well as negative), when stimulated by others. We are told in the biographical data that he has been living with a homosexual companion for the last eight years. We do not know whether he also "cruises" for other sexual companions, but an eight-year living-relationship should be indicative of the capacity for establishing close emotional relationships. Thus the TAT and Rorschach appear to be better predictors of emotional responsiveness and attachments to others than is the Sentence Completion.

Bearing in mind the fact that neither Forer nor Henry made use of the entire test protocol because they chose to illustrate a specific use of a limited amount of the material, we cannot make inferences about the comparative validity of the three tests—even if we had sufficient criterion data. Had either Forer or Henry used the remainder of their material, the predictions might have been modified. Nevertheless, in view of the discrepancies among the findings, even with this limitation, we do well to bear in mind the difficulties in drawing inferences from a single test and the wisdom of using a battery.

If our impression is correct, that there is greater discrepancy among the findings for the homosexual than for the heterosexual twin, and that this is not simply a chance occurrence (as we suggested earlier), an explanation of the discrepancies may have some importance for our understanding of homosexuality and its manifestations in projective tests. One explanation has been suggested by both Forer and Piotrowski in their finding that the overt behavior of the homosexual twin is more difficult to predict than is that of his brother. If this be true, one would expect to find greater discrepancies or contradictions among the test findings.

A second explanation of the discrepancy is that the interpretation of the protocols is greatly influenced by the implicit assumptions about homosexuality held by the clinicians; a variable is thus introduced which may be quite independent of the particular protocol being examined. Without these assumptions, or theories—not just about homosexuality, but in respect to any personality or behavioral event—projective protocols would remain fragmentary hieroglyphics in an unknown language. Theoretical

assumptions are indispensable. In fact, the better the theory about personality dynamics involved in a given clinical phenomenon, the greater the probability that we will use projective tests appropriately. As some of the papers in this symposium have pointed out, we are in great need of such knowledge, especially in the area of homosexuality. In the absence of such knowledge, clinicians are likely to use their own experience or the current limited theories of psychopathology, and thus make the picture of the individual homosexual fit a clinical stereotype. Thus one picture of the homosexual is of a person incapable of enduring emotional relationships, sexually promiscuous and likely to "cruise" homosexually, ridiculing convention, sneering at love and marriage, hating women, not capable of restraining personally or socially undesirable action-tendencies, essentially unmasculine, being submissive to other males, an "injustice collector"—blaming situations rather than himself. That this is a valid picture of some homosexuals is indisputable. It is, however, as I have pointed out (1), limited in its applicability to homosexuals in general. Whether, for example, Dick is the assertive male, as Henry suggests, or one who finds passivity and compliance more acceptable than active assertion, as suggested by Piotrowski, may be a contradiction to be resolved by the fact that the Rorschach is tapping a deeper level than is the TAT and that Dick over-compensates for a basic passivity by assertiveness in overt behavior. If so, we are not shown how. A second possibility is that assertive masculinity and homosexuality are so often thought by clinicians to be mutually contradictory terms that evidence of assertiveness in the homosexual is linked with other expressions in behavior than the masculine role. Or, to take another example, homosexuals are so often thought of as hating women that in the absence of indications of strong attraction to women the inference of hatred may be quickly made. Not all homosexuals do hate women; in fact some greatly enjoy their company. The assumption that at some unconscious level they nevertheless hate women is, in the present state of our knowledge, unproved.

It is important to emphasize that in neither of the examples cited do we have sufficient evidence to validate the test findings—

although we are told that it is generally agreed that Dick is less dependent than is his twin. We are using these as illustrations of discrepancies which could be due as much to different theoretical conceptions of homosexuality as to differences in test data.

The problems created by the complicated relation between personality dynamics and overt behavior, set forth with such clarity in the papers we have been discussing, are given full illustration by the biographical and test material we have been examining. Our test interpreters agree, as we have seen, that Tom's heterosexuality is insecure: that he has some homosexual tendencies and that he is only technically heterosexual. In the summary of the developmental history of Tom, the statement is made that the factors which helped "to swing the balance" in favor of a heterosexual choice were "the memory of a nursemaid whose femininity and body attracted him as a young boy, and a reaction formation against the shipboard homosexual seduction and his brother's homosexuality," and "Tom had seen the father as a non-forceful figure, but as one who nevertheless directed him away from adolescent homosexual play." Why was there reaction formation against the homosexual seduction and the knowledge of his brother's homosexuality? Why did Tom, and not Dick, accept the father's direction against the homosexual play?

We would like to know the factors which helped to swing the balance in favor of a homosexual choice for Dick. Unfortunately, we do not have similar analytic material for him. There is so much that is similar in the manifest negative attitudes of the twins toward their parents and in their adolescent homosexual encounters. How did the preferential treatment of Dick by the mother—the most striking difference in the affectional climate in which the twins were brought up— influence his homosexuality? How did the rejection of Tom influence his heterosexuality? How was the greater dependence of Tom on Dick involved in the development of his heterosexuality; and how was the greater independence of Dick involved in the development of his homosexuality? This twin pair confronts us with many critical questions. We cannot answer these questions with the knowledge we have, but they need to be answered if we are to understand the choice of overt sexual pattern.

A final comment, which may compound the unanswered questions, is that under different life situations the same personality dynamics may lead to overt homosexuality or to overt heterosexuality. Or, to put it somewhat differently, an individual with a completely homosexual history of many years' duration, and for whom the test material indicates a pattern of "homosexual dynamics," may change (without therapy) to an exclusively heterosexual form of behavior—and with evidence of a high degree of enjoyment and satisfaction. We have obtained extensive material from one person in this group and know of others. Perhaps it is as true to say that similar personality dynamics may lead to very diverse patterns of behavior as that the same patterns of overt behavior may have diverse dynamic origins.

#### REFERENCES

1. Hooker, E.: The adjustment of the male overt homosexual. *J. proj. Tech.*, 21:18-31, 1957.
2. Kallman, F. J.: Comparative twin study on the genetic aspects of male homosexuality. *J. nerv. & ment. Dis.*, 115:283-298, 1952.
3. Little, K. B.: Problems in the validation of projective techniques. *J. proj. Tech.*, 23:287,290, 1959.
4. Little, K. B. and Shneidman, E. S.: Congruencies among interpretations of psychological test and anamnestic data. *Psychol. Monogr.*, 73:No. 6 (Whole No. 476), 1959.

**APPENDIX**

**TEST PROTOCOLS**

# SENTENCE COMPLETION TEST

## INITIAL TESTING (1957)

	<i>Dick</i>	<i>Tom</i>
1 When he was completely on his own, he	made out	read
2 He often wished he could	swim better	fly
3 It looked impossible, so he	gave up	tried it anyway
4 He felt to blame when	she fell after stumbling over his suitcase	she started to cry
5 When she refused him, he	had a drink	got drunk
6 I used to feel I was being held back by	my bad tonsils	my inability to fully express myself
7 He felt proud that he	bought it	had earned a scholarship
8 As a child my greatest fear was	nightmares	of saying the wrong thing
9 His father always	talks	was busy when he was most needed
10 Men	are all right	are the natural (finest) complement to women
11 A person who falls in love	is pretty lucky	is lucky
12 I was most depressed when	I didn't get a bigger bonus	I felt that I was unloved
13 My first reaction to him was	positive	of intense curiosity
14 When she turned me down, I	thought "to hell with it"	I was deeply depressed for months
15 His new neighbors were	friendly	white people
16 Most fathers	're fond of their grandchildren	seen more human than mine
17 Sometimes he wished he	were not so dull	were dead

18. Usually he felt that sex was fun  
 19. I could hate a person who doesn't soak the dishes after a meal  
 20. His earliest memory of his not especially pleasant
- mother was
21. When I meet a woman, I say hello  
 22. When people make fun of him, he doesn't care for it
23. When he met his boss, he smiled  
 24. When I think back, I am ashamed that I didn't do better
25. If the job is too hard for me, I let myself off
26. Sisters are pretty, sometimes
27. He felt his lack of success was due to his in-laws
28. When they talked about sex, I sat up & took notice
29. I used to daydream about being a conductor
30. Most men are men
31. When I have to make a decision, I make it
32. Love is very precious
33. My earliest memory of my father escapes me
- was the most beautiful pastime  
 browbeats children  
 nebulous
- wonder what impression I'm making  
 blushed
- felt interested  
 I've slept with older women
- try to get help on it  
 can be very good friends  
 his inability to express himself
- became interested  
 singing at the Met  
 in the business world are prejudiced  
 & too much concerned with their  
 jobs
- worry about it & talk about it and  
 then make up my mind  
 a many splendored thing  
 is negative

*Tom*

34. I was most annoyed when he didn't finish the floors before we moved in	my brother didn't pay back a debt
35. Most mothers	are too concerned with that fact
36. Taking orders	is not always pleasant
37. I dislike to	paint furniture
38. I feel that people	are pretty decent
39. Most women	have a certain amount of charm
40. After he made love to her, he did it again	wait
41. If I can't get what I want, I	am not usually happy about it
42. When I am criticized, I	stole
43. He felt he had done wrong when he	he applied himself
44. He felt he couldn't succeed unless	I was younger
45. I used to feel 'down in the dumps' when	ever I was given the slightest chance
46. When they didn't invite me, I knew it wasn't an oversight	felt rejected
47. He was most anxious about his car	his future
48. When he found he had failed the examination, he	made arrangements to take another
49. A lot of people	go a long way
50. Brothers	are sometimes the best of friends
	are slobs
	are individual people accidentally tied to their siblings by birth

51. After they knocked him down, he wept
52. Most of all I want a raise
53. My sexual desires are normal, I guess
54. His conscience bothered him most when he knew he lied
55. He felt he could murder a man who shot his friend
56. At times he worried about pimples
57. He did a poor job because he wasn't equipped for it
58. Most marriages last more than three months
59. While he was speaking to me I picked my nose
60. My mother is getting along in years
61. Sexual intercourse is satisfying
62. Responsibility is a challenge
63. Whenever he does below average work, he starts studying
64. He felt blue when it rained for the whole week
65. I felt most dissatisfied when the cat threw up twice
66. When I meet people, I generally feel interested
67. My first reaction to her was look at that make-up
68. When they put me in charge, I improved the system nothing in particular
69. I feel guilty about being in analysis sometimes
- got up*
- is a beautiful love*  
*are quite frequent*  
*he lied*
- deliberately misrepresented a known situation*
- money*  
*he was over-anxious*  
*are not "made in heaven"*
- became aware of his nervousness*  
*is a cold, old woman*  
*is the height of physical pleasure*  
*is a normal duty*  
*feels like an ass*
- he had no one to go out with*  
*he didn't understand how he felt*  
*about something*  
*anxious*
- sexual eagerness*  
*felt that I could do the job*

## PREDICTION OF OVERT BEHAVIOR

*Dick*

- 70 When my father came home, I poured him a beer  
 71 As she spoke to him, he knew this was not "it"  
 72. When he was punished by his mother, he

73. People in authority are not always competent

74. I feel happiest when I have a nice sunny weekend with

people I like

75 He bould up when she insulted him

76 When my mother came home, I opened the door for her

77. When they told him what to do, he

78. After a year of marriage, he had had it

79 His greatest worry was money

80 When he got a spanking from thought "the hell with him"

his father, he

81. Most women act as though they were lonely much of the time

82. When I feel that others don't I leave gracefully

like me,

83. More than anything else he needed a pair of shoes

84. Most people are all right

*Tom*

felt depressed  
 listened and answered  
 felt very insulted

just people  
 I am with someone I like

•  
 felt depressed  
 did it

had spermcd a child

himself

felt like hitting back

they don't know whether or not to

"like" sex

I feel depressed

love

uncharitable

---

\*Unanswered

almost shit in his pants

85. When his turn came to speak,

he did

I tried

rats

nothing particular

86. I could lose my temper if

87. I am afraid of

88. Whenever he was with his

father, he felt

89. A man would be justified in

beating a woman who

90. When they told him to get

out, he

91. Sometimes I feel that my boss

is simple-minded

92. When I think of marriage

93. Whenever he is introduced to

people, he

94. When he was with his mother, like leaving

he felt

95. Most men act as though

they were something special

96. Fathers conceive children

97. He felt inferior when he realized he was only 4'9"

98. If I were king, I would abolish certain laws

99. Mothers are too concerned with that fact

100. I feel sad about Eisenhower

I felt there was provocation  
showing my feelings  
uncomfortable

enjoyed being beaten

got out

is very lazy and uninterested in his  
work

I think of someone I don't know yet  
feels embarrassed

bored

they knew instinctively what innate  
rights they have

are people  
he was accused of something he  
wouldn't even think of doing  
create a parliament based on a consti-  
tution

are sometimes pregnant  
being psychologically handicapped

## SENTENCE COMPLETION TEST

RE EVALUATION (1959)

	<i>Dick</i>	<i>Tom</i>
1. When he was completely on his own, he	was happy	was lonely
2. He often wished he could	own a car	swim
3. It looked impossible, so he	saved and bought one	went home
4. He felt to blame when	he hit the garage door	the postman fell over the roller skates
5. When she refused him, he	was sort of sorry	persuaded her
6. I used to feel I was being held back by	not having enough money	my brother
7. He felt proud that he	made it	could play the piano
8. As a child my greatest fear was	nightmares	of my parents
9. His father always	ate well	failed to make his position clear or rational
10. Men	are preferable to me	-Women
11. A person who falls in love	is very fortunate	should get married
12. I was most depressed when	he left me	I was single
13. My first reaction to him was	love and respect	surprise
14. When she turned me down, I	was glad	felt bad
15. His new neighbors were	pleasant	noisy
16. Most fathers	do their best	are older
17. Sometimes he wished he	could buy a home right now	could fly
18. Usually he felt that sex	was marvelous	was necessary

- |   |                                 |                        |                                |                               |
|---|---------------------------------|------------------------|--------------------------------|-------------------------------|
| lies  | is sloppy                       | look her up and down   | considers it a minor challenge | my father was intimidating me |
| blurred   | dim                             | gets red in the face   | I was so neurotic              | are big                       |
| 19. I could hate a person who<br>His earliest memory of his<br>mother was | say hello                       | don't do it            | -brothers                      | is one of the facts of life   |
| 20.   | enjoys it to a point            | lack of interest       | lack of interest               |                               |
| 21. When I meet a woman, I<br>him, he                                     | said hello                      | have a go at it anyhow | listened                       |                               |
| 22. When people make fun of   | I said that of him              | are nice               | screwing                       |                               |
| 23. When he met his boss, he  |                                 | failure                | are interested in women        |                               |
| 24. When I think back, I am   |                                 |                        | think                          |                               |
| ashamed that  |                                 |                        |                                |                               |
| 25. If I think the job is too hard  |                                 |                        |                                |                               |
| for me, I   |                                 |                        |                                |                               |
| 26. Sisters   |                                 |                        |                                |                               |
| 27. He felt his lack of success was                                       |                                 |                        |                                |                               |
| due to  |                                 |                        |                                |                               |
| 28. When they talked about sex, I   | perked up my ears               |                        |                                |                               |
| 29. I used to day dream about   | being powerful                  |                        |                                |                               |
| 30. Most men  | are good                        |                        |                                |                               |
| 31. When I have to make a deci-   | make it                         |                        |                                |                               |
| sion, I   |                                 |                        |                                |                               |
| 32. Love is   | marvelous                       |                        |                                |                               |
| 33. My earliest memory of my  | is dim                          |                        |                                |                               |
| father  |                                 |                        |                                |                               |
| 34. I was most annoyed when   | he kicked the dog               |                        |                                |                               |
| 35. Most mothers  | do as well as they can, I guess |                        |                                |                               |
| 36. Taking orders   | is necessary                    |                        |                                |                               |

	<i>Dick</i>	<i>Tom</i>
37 I dislike to	be tired	do nothing
38 I feel that people	are generally all right	are generally good, at least under standable
39 Most women	are not sexually appealing to me	are attractive between 16 and 35
40 After he made love to her he	felt good	went to sleep
41 If I can't get what I want I	do without	get annoyed
42 When I am crucified, I	am not overjoyed	take it and think of an answer
43 He felt he had done wrong	stole	drank too much and woke up with a hangover
44 He felt he couldn't succeed unless	he got a break	he tried hard
45 I used to feel down in the dumps when	it rained	I was in my teens
46 When they didn't invite me, I	was sorry	felt left out
47 He was most anxious about his raise	knew he'd have to take the course over	save money
48 When he found he had failed the examination, he	work hard	got stewed
49 A lot of people	're fun to have	read newspapers
50 Brothers	stayed put and they left	sisters
51 After they knocked him down, he	cried	cried
52 Most of all I want	to be reasonably happy	to get my wife pregnant after we get a home
53 My sexual desires	're fulfilled	're alert

- he was lazy  
he did something wrong  
killed one he loved  
was cruel  
myself  
he wasn't interested  
are happy or at least are what you  
make them  
looked at him  
is very neurotic  
is fun  
is a good thing  
feels guilty  
one of desire  
was glad  
nothing I can think of anymore  
felt apprehensive  
listened  
felt sad and angry
54. His conscience bothered him most when he did something wrong  
55. He felt he could murder a man who killed one he loved was cruel  
56. At times he worried about money  
he wasn't up to it  
57. He did a poor job because depend on love and respect  
58. Most marriages  
59. While he was speaking to me, I thought of something else  
is seventy three years old  
60. My mother  
61. Sexual intercourse  
62. Responsibility  
63. Whenever he does below average work, lie  
it rained  
the meal was cold  
interested  
64. He felt blue when  
65. I felt most dissatisfied when  
66. When I meet people, I generally feel  
positive  
67. My first reaction to her was  
68. When they put me in charge I did all right  
69. I feel guilty about no I don't  
70. When my father came home, I gave him a big hug  
knew where they stood  
71. As she spoke to him, he  
72. When he was punished by his mother, he

## PREDICTION OF OVERT BEHAVIOR

	<i>Dick</i>	<i>Tom</i>
73. People in authority are	not as bad as they are sometimes made to appear	the ones to get things done
74. I feel happiest when	I am home	I'm at home with Fay
75. He boiled up when	he said that	he saw the waste of time
76. When my mother came home, I helped her up the stairs	I helped her up the stairs	thought it's only for the weekend
77. When they told him what to do, he	did it	did it
78. After a year of marriage, he knew it would last	money	felt delighted
79. His greatest worry was	was angry	money
80. When he got the spanking from his father, he	they were the nuts	got mad as hell
81. Most women act as though they were the nuts	I have to put up with it	they were more delicate than men
82. When I feel that others don't like me,	like me,	I try to get them to like me
83. More than anything else he needed	a raincoat	sleep
84. Most people are	all right	all right
85. When his turn came to speak, he	did	spoke
86. I could lose my temper if	I didn't have reasonable control	I wanted to sometimes
87. I am afraid of	guns	losing my temper
88. Whenever he was with his father, he felt	more comfortable than before	uncomfortable

89. A man would be justified in beating a woman who beat him first  
 (I don't believe in beating people)
90. When they told him to get out, he got out
91. Sometimes I feel that my boss is incompetent  
 I feel delighted
92. When I think of marriage I think I've had it just as good, if not better, in many respects  
 \* is interested
93. Whenever he is introduced to people, he is uncomfortable
94. When he was with his mother, better as time went on  
 they knew more or less what they're doing
95. Most men act as though they did their best  
 are often neurotic, like mothers
96. Fathers are necessary  
 he felt blue
97. He felt inferior when he saw better-built persons  
 hardly know how to handle the job  
 (See 96)
98. If I were king, I would almost nothing anymore
99. Mothers are necessary  
 the East-West problem
100. I feel sad about

---

•Unanswered

## PREDICTION OF OVERT BEHAVIOR

*Tom**Dick*

73. People in authority are not as bad as they are sometimes

made to appear

I am home

he said that

74. I feel happiest when

He boiled up when

75. When my mother came home, I helped her up the stairs

76. When they told him what to do, he

77. After a year of marriage, he knew it would last

money

was angry

78. When he got the spanking

from his father, he

79. His greatest worry was

80. When I feel that others don't

81. Most women act as though

82. When I feel that others don't

83. More than anything else he

needed

84. Most people are

85. When his turn came to speak,

86. I could lose my temper if

87. I am afraid of

88. Whenever he was with his

father, he felt

the ones to get things done

I'm at home with Fay

he saw the waste of time

thought it's only for the weekend

did it

do, he

knew it would last

money

got mad as hell

they were more delicate than men

I try to get them to like me

sleep

all right

spoke

I didn't have reasonable control

guns

more comfortable than before

I wanted to sometimes

losing my temper

uncomfortable

the sort of rocky ground in the foreground His wife is the instrument of immortality for him she is pregnant The girl in the foreground is their daughter ready to go off to school She is a dedicated type and seems rather likely to be come a teacher She has a sort of far away look in her eyes confirming her interests in things of the mind The person in the background is perhaps the man's father In the larger sense, the picture is the symbol of human endeavor and striving to create

Card 3BM  
Either a young boy or girl somewhat unhappy for having broken the toy at the left those numberless crises of childhood that are so important at the time but fade into insignificance as one matures

This is a still from a motion picture starring Linda Darnell and perhaps some latest exciting male new comer to the Silver Screen The poster in the background is supposed to be so intriguing that you go in to see the picture If you do, you will find it's not in the movie! Other wise the scene is one in which the girl wants something of the man that he is perhaps not willing to give perhaps the truth about some

her womb and is resting in a relaxed joy, while her husband tills the furrows of the rich earth The young girl in the foreground is also a part of the mood of growth although she stands on barren rocks The books in her hand and her searching gaze appear to indicate that she is deep in thought—perhaps about something she has read Perhaps she is about to have a profound insight into the nature of her place in the world, perhaps she is in the process of growing up

This is a young person completely dejected because she is hump backed There is no happy ending to her situation because she must, per force, live in her grotesque body

This man is straining to get out of the house away from his beautiful, but cold, wife The sexually inviting female to the left on the picture symbolizes his hunger for a wild lay

## THEMATIC APPERCEPTION TEST

INITIAL TESTING\* (1957)

*Dick*

Card 1. The boy received the violin as a present—seemingly because he wanted it, judging from his rather sensitive face indicating some pre-disposition of a creative temperament. He is thinking about the possibilities of the instrument and his growing ability to realize them.

*Tom*

This boy has been wanting to play a musical instrument for years—ever since he could remember. His parents told him that they'd let him play a violin as soon as he got big enough to hold it properly. He is now, in the picture, sitting in front of his long-awaited gift for the first time. The immediate excitement of opening the case is over. For the first time he is with the instrument face to face, alone. Soon he'll touch the violin and examine it minutely, set it to his chin—and go through the initial pain of realizing that he can't elicit beautiful notes on it. If he gets the proper guidance, he will then begin a long, painstaking but rewarding development. If he has talent, he may become a professional violinist.

Card 2. A rather idyllic symbolic picture. The virile farmer, husband of the woman at the right, has made "by the sweat of his brow" the farm from

This is a picture of earth and birth and soil and toil, of fertility and growth. The woman leaning against the tree is feeling the child move within

\*In the initial administration of the TAT, subjects were asked to write out their own responses.

not really want to shoot any animals. The nightmare, portrayed in the background, symbolizes his guilt.

Card 12M. In the background is his fantasy alternating between an emergency operation and a heinous crime. He will become aware of the "unpersonal" character of "things"—tools are for use, and the uses can be manifold.

The boy has fallen asleep and his father is passing his hand over his eyes to make sure he is, before turning out the light. Why his right leg is raised so high is not very clear, perhaps he is tip-toeing in that exaggerated manner to amuse himself.

Card 13MF. The woman has just died. She is still young and the husband's grief is emphasized by the intense presence of her firm breasts—now dead.

This old man has just closed the eyes of his son who has died of T.B. He has stopped the upward motion of his arm to bless the dead boy.

This man has discovered his wife has died in her sleep. He is terribly grief-stricken because she is such a young woman and he had considered himself so fortunate to marry her as he is much older.

This is a young man looking out of the window of his penthouse apartment after a long party. He is looking up at the early morning sun, breathing in fresh air.

Card 14. This wonderfully expressive picture represents the climax of any young man's growing up. There is only he and the sky and stars. All his living comes down to one person—himself. He will, of course, do many things, know many people, perhaps fall in love—but it all starts with him. All his responsibilities lie assumes, of his own free will. He is at the door of life.

*Tom*

Dick  
incident or other They'll work it out, however, by the last reel.

Card 6BM.

The man, a friend of the family, has just had the unpleasant duty of telling the old woman that someone in her family has died. It is the moment of shock when no words are possible. The woman is so old, however, that she has known death before and will be able to sustain her loss in this instance as something inevitable . . . something that happens, like rain or snow or flowers

Card 7BM.

The old J. P. Morgan-like man is the younger one's father. He is giving him "pointers" on how to get ahead in business—the banker business in this case. There is an aura of conniving suggesting that the old man's fortune was amassed through cunning at the expense of others. He is molding the son in his own image . . . it is the story of paternalism in its most undesirable form.

Card 8BM.

This well dressed rich boy has been out shooting on his family's estate. He is having a daydream about the sporting gun—turning it into another instrument of destruction—a knife. The scene

This man is the foreman of the steel mill in which the old woman's son works. He has just told her the boy has been killed in an accident.

The old man, an old lecher, is advising his son who has just informed him that he has got a girl into trouble, to arrange for an abortion.

The effeminate boy in the foreground has just remembered a nightmare he had the night before. It was occasioned in anticipation of a hunting trip. The boy is by nature effete and does

fulness of the earth which has given them the farm and the fruitfulness of the womb which has given them their children. The rocks in the foreground sort of symbolizes the harshness of nature and the field in the middle-ground shows what man can do to harness nature. I think that's all I can say about it.

ah . . . she's very pregnant and she's looking forward to it . . . to having the child. It's probably in the afternoon. The girl on the left . . . young girl, probably sixteen or seventeen; going to school and she's definitely the farmer type girl, because she has large bones. You might say peasant stock. Let's see, what's she thinking, feeling? She's probably thinking about Johnny Brown at school and she's beginning to be semi-nine and she'll be glad when she gets out of school at the end of the year.

Card 3BM. This looks like a Picasso . . . sort of from the Blue Period because of the angularity of the shape. It's the figure of a woman and she's very unhappy; but I don't know what she's unhappy about. (pause) There's something beside the bench, the upholstered bench she's leaning on. I don't know what it looks like but maybe some one burned a hole in her carpet. (smiling) Well, I think if she'll just get up and try to get used to the hole in the carpet and lose about ten pounds around the hips she'll be all right.

This looks a little bit like a Gangin. The form of it. Literally it's a sad picture whereas Gangin's pictures are full of life. It's a girl, um . . . I don't know what the hell she's doing. She doesn't have much room between the thing she has her hand on and where she's sitting. She's listening for mice, let's say. (smiles) The most interesting thing about this is the form of the thing.

The woman at the right looks like Linda Darnell and this sort of looks like a still from a movie that they would have outside a movie house.

This is really very sexy; actually it has something to do with sex. This is probably a whore house. The reason I say that is that there's someone in

## THEMATIC APPERCEPTION TEST

## RE-EVALUATION\* (1959)

*Dick***Card 1.**

This boy had a birthday recently and he got this violin as a present and he's thinking about it. It's going to be pretty tough for him to master it because he looks pretty young and that violin looks like a full size violin. If they'd given him a three-quarter size violin it wouldn't be as hard to learn to master it. But anyhow, he's going to learn to play it and he'll be very good at it . . . and he'll have a successful career as a violinist

*Tom*

I've seen this before. This is a young boy. He looks very much like Yehudi Menuhin and he's ah . . . actually what he's doing is looking at his father's violin and he's looking at it and sort of hearing in his head how a violin sounds and he's enchanted with it and he's thinking: "Boy, maybe someday I'm going to play the violin. I already look like Yehudi Menuhin." (laughs)

**Card 2.**

This is a symbolic sort of painting. The family in the picture owns the farm. The father's in the background plowing and his son is in the foreground plowing. The woman at the right is the father's wife and she's pregnant and she's thinking about being pregnant and she's even a little amazed at being pregnant because she's in her early forties. The girl on the left is her daughter and she's going off to school. She might even be the school teacher and the symbolism is the fruit-

ing fruit. Her breasts are full; she's probably,

\*The responses obtained in the re evaluation were recorded verbatim by Miss Miriam Asher.

savory facts about corporate strategies. The young man doesn't like what he's being told. So he's going to think about it for a couple of days and then he'll realize that J P Morgan is pretty old and he'll probably die pretty soon and then the young man can handle things the way he thinks best and more honorable.

This is a nightmare picture. The boy in the foreground is well dressed, he goes to a private school and he has a rifle with which he went hunting the day before. During the night he had a dream about his hunting which turned into a nightmare. He thought he dreamt that he had shot someone and in his dream the someone turned out to be himself. He dreamt that he was carried into an operating room and the surgeon cut into him to remove the bullet without giving him an anesthetic. At that point he woke up and now we see him the following day thinking about the dream. You must get writer's cramp writing all that (laughs)

Card 12M Oh dear, this is a very sad picture (pause). The old man is the grandfather of the boy lying on the couch. The boy has died and the grandfather has just closed his eyes. End of story

side and the old man's some, I don't know . . . corrupt politician and he's telling the young man, "All you've got to do . . ." whatever he has to do and the young man's going to say, "O K." So it looks as though the young man is going to do some dirty job for the old fellow.

The kid could be dead and the man, maybe his father, is just closing his eyes or is blessing him. Or the kid could be asleep and his father or who ever he lives with is about to wake him up. I

*Dick*

(pause) And on the wall in the back is good old Paulette Goddard and she's the other woman in the triangle. If it is a triangle, why would he have her picture up when his girl friend was around? Maybe he just likes sexy calendars anyhow. Linda Darnell is trying to make him change his mind and he's having a hard time trying to decide what to do. But I'm sure it'll turn out all right because movies usually do.

Inquiry—(Trying to change his mind? decided?) I don't know, didn't have anything specific in mind. If it's a movie then it's something about the picture of the girl in the background.

Card 6BM.

The man is the woman's son and she's in a state of shock because he's had to tell her that her husband just had a heart attack and died. She either is going to adjust to this fact or else the loss will make her waste away and die also. But at the present moment she's quite immobilized and we can't tell how she's going to react in the long run.

Card 7BM.

The man, the older man looks like J. P. Morgan. (pause) He's just told the young man some un-

*Tom*

the background showing a thigh and this particular girl is trying to get this man and he's got his eye on one of the other girls. On the other hand, the thing looks like a poster for a movie. They look a little bit like movie people drawn on a poster, idealized faces . . . The girl in the foreground could be Linda Darnell and the other figure could be Rory Calhoun or someone like that.

I remember this from the last time and it has the same effect now. It looks like someone who's come in who is bringing bad news to this old lady standing by the window. It could be about an accident . . . about her son . . . could be, on the other hand, the woman's son and he could be saying, "Mum, I met a girl."

The young man looks very cynical and the old man looks, ah . . . he, too, looks on the shady

*Least Liked:* No. 12M, No. 3BM  
No. 12M: Death is not terribly appealing. That's why I don't like this one.  
No. 3BM: And this sort of unhappiness isn't appealing. It's sad. She's got problems, whatever they may be and here at the moment she doesn't seem to have very much of a will to do anything about them.

No. 8BM, No. 13MF

No. 8BM: Because of this boy's belly being opened: A knife. I don't like that idea. The boy in the foreground looks morbid. There's a suggestion of pain and it's not a pleasant picture in that sense.  
No. 13MF: First of all it's very startling. It seems to be against sense. You have a woman, well-formed and lying in bed and the man standing, apparently very unhappy. Either the woman is a corpse or the man is out of his mind. I guess this picture could have all kinds of implications. What do you call having relations with someone who is dead? Oh yes, necrophilia. This picture leads to madness and necrophilia.

Dick

Tom

don't have to go on and on if it really doesn't interest me that much?

**Card 13MF.** This responsible family man is out of town at a convention. He picked up the girl for the night and now he's getting up in the morning with a terrible hangover. The girl is still asleep but he has to get up to go to a meeting.

**Card 14.** This is a picture full of promise. This boy left home to go to the big city and now he has a place of his own. It is nighttime. He's looking at the sky and he feels full of wonder and ambition and he feels like he's going to conquer the world.

The attitude of the man looks as though he's in pain or in sorrow. And the woman is lying on the bed with her breasts exposed. Perhaps the woman is dead for otherwise he wouldn't feel sorrow or look like he was in great pain. That's about it.

It's dark outside and we're looking in. Oh no, wait a minute. It's light outside and he's inside looking out. He's opening the window; it's early morning and he's getting a breath of fresh air; looking at the rising sun and he's saying, "Ah, Saturday morning. We've got the whole week end."

*Best Liked:* No. 14, No. 2

The basicness of each one, I would say. (Basicness?) They contain a lot of solid reality, of living. This one (No. 14) is sort of the striving after whatever one wants to do and this one (No. 2) is a sense of fulfillment; just fruitfulness of living, it's bursting with life.

No. 2, No. 14

No. 2: Everybody seems so happy and everything is fruitful and nature is working well and that sort of thing.

No. 14: This one because it's very simple and there is something that appeals to me in looking out a window. Especially if you don't have to go to work in the morning and don't live in the city.

Wings, head, body. Could continue on down, especially eagles.

> Doesn't look like much of anything.

^ 6. This part here, if you consider it separately, looks like wings.

Think that's about all I can see. >

v 7. Of course, this way looks like Jap gate structure, things they have above gate.

(W) Just the design.

I think that exhausts the possibilities.

Card II.

3"

1. This suggests clowns to me or dancing bears. Rather theatrical-like, connected with the stage.

(W) Whole image, although this doesn't properly belong. Funny hats on, faces hidden. (Bears are D—"without heads"—not usual P)

2. These two things could be feet. You know, bottom of a person jumping up.

(D) Grotesque feet, this skin color, going into socks you walk around in. In which case this all (W) could be pantaloons.

This looks to me like two carnival characters having a dance. Thing has a brighter, happier feeling than the other card.

(W) Like clowns. Costume, black, and red feet and red cap.

1. Oh, then I see two buffalo heads or . . . yeah —something like that, looking towards each other.

(Usual animal heads) Ears, noses. Just imagine the eyes, beginning of shoulders and foreleg.

**RORSCHACH TEST**  
**INITIAL TESTING (1957)**

*Dick*

Card I.      4"

1. Well, it might be some fantastic bat in flight, like from Fantasia.  
(W) Wings, body, up here not very clear. Idea of a bat.
2. It might be some sort of . . . not terribly good . . . scenic design. Two female figures with head sticking up in middle and arm raised. Sort of back to back.  
(W) Leaning back to back, heads, breasts, arms raised, skirts here.

V

3. This way looks rather like a Jap mask.  
(WS) When you wear it, pull the parts together. Eyes here. These openings just for kicks.

4. Also looks sort of skeletal, lower pelvic region, with the spine going up.  
This definitely pelvic, this the spine.  
(pointing) Shape.
5. This part here looks like heraldic part of emblem—sort of like an eagle wings incomplete.

*Tom*

Card I.      3"

1. First I see a butterfly.  
(W) Two symmetrical wings, thing looks very symmetrical, tail, and top part of the head.
2. And then I see a torn moth rather than a butterfly.  
Same shape—started to look more like a moth when I thought of colors and holes.  
Mutilated moth, grey and the night.  
Really more of a moth than a butterfly.
3. And I see outline of a person, the buttocks, definitely a woman.  
Hips, legs, up here breast outline. That's where this stops.
4. Top part could be a crab. Some part of a crab.  
Claws reaching up.  
(D) Just claws.

8 We deal in sex symbols, too, don't we? This is possibly a vagina down here and this would be the womb (S). Then if you take this as a vagina, have to discount these things (red D extensions)

(DS) Sex This looks like clitoris, further in the vaginal passage, space in back (S) of it supports vaginal idea  
That's about it

Card III

2'

1 Well first thing looks like thing Marcel Marceau does, the pantomimist Butterfly in the middle He does a scene like that Looks like two figures—it would be very symmetrical of course

(W) (Usual humans) Maybe holding something Wings and center Men

2 Thing in middle could also be a bow

(D) General impression of a bow knot in middle

3 Could also be a type of Italian spaghetti only of course it's red

(same bow)

Sort of dance formal dance  
(two people above)

3"

1 They look like two Negroes, couple of bowling balls in each hand, in dress suits  
(D) Heads, necks, and chests, hips, leg  
Dressed up formally Negroid shape head -thick lips, Congo long heads, sort of formal stance, dance (?) Men

2 Two red blobs look like a couple parrots up side down tails up, heads down

(D) Primarily shape, partly the color

3 Middle looks like a lung, picture of a lung  
(D) Looks like blood I guess it looks like pictures of lungs I've seen Spongy bloody tissue Shape of lungs

*Dick*

3. This part looks sort of like a tool. Head end of pliers.  
(D) Shape.

1. Middle looks sort of like fanciful rocket ship, discharging jet propellant, has that dynamic feeling in it.  
(SD) Red is the jet ejection, after blast.
- V 5 Again we have an abstraction of skeletal, you know, pelvic business. This back of the backbone, hips, just region.

6. If you made an effort, I suppose you could see sexual symbols in it but I don't know I really do, but you could read that into it. Well, I imagine you could consider that sort of anal (S) and this the cheeks (D).

I think that's all I get out of this.

*Tom*

3. Now this structure here looks like end of a circumcized penis to me, just that part there. Can I turn it around?

Would be circumcized, what left of the foreskin and head. Bottom view.

- > 4. Now this one looks like a little bear, one of those Australian teddy bears, but only this one—one on the right.  
(D) Eyes, nose, back, legs. (not P)
5. Now this one again looks like a crustacean, some kind of a star fish, something at bottom of sea.  
(D) Edges coming out, protrusions and the color. (?) Combination of both. (?) Think the shape.

6. Maybe sort of coral or . . .  
Same area. Color most important.

7. I get some sort of turkey image now that looks like it, red heads, black bodies.  
(W) Black bodies, red heads, comb on top.

- V 2. Fanciful animal shape with the head and wings and tail. Sort of a backbone.  
 (W) Bat-like with sort of a dragon head. Backbone structure. (Fc)

2. See a colonial hat on top of the thing. Taking this thing separately, looks like the head of an animal, something like a . . . the deer family. Looks dead, with the eyes open.  
 (D) Just lying out. Deer family. Maybe with tusks here.
3. Or like a fish, maybe a dead fish.  
 (D) Long, imagine it would be longer than this, just head. Dead, too.
3. This again looks sort of clownish to me, like a clown sitting on a tree stump. Enormous shoes and withered arms.  
 (W) (M) Looking at it more or less from ground, legs look enormous, head flat, funny long nose.
4. Again I see animal, looks sort of like a seal or sea lion with mouth open.  
 (D) Form.  
 That's all I see in it.
4. I see a boot and I thought it looks like Italy but not really like Italy. Italy and a boot look similar.  
 (D) Just looks like a boot you pull on.
5. Then this thing looks like a skin, whole thing looks like fur of some animal.  
 (W) Taking things as a whole, thought most of it upside down. Head (usual bottom) and skin. (Fc)  
 That's about all.

Card V. 4"  
 V 1. This is butterfly shape. Could also be a bat shape.

5"  
 1. Right there I see a bowler hat. Brim and top.

*Dick*

- V 4. Here it looks rather jolly or scary, however you want to look at it—smiling type owl-witch type of combination. Boogey man type of thing.

(W) Big eyes, arms, wild hair, mouth (S). body. Witch goblin. Like Walt Disney in Fantasia.

- > 5. This way looks like fanciful dogs with enormous tails.

(top D) Tails terribly long, more than usual number of legs

6. If you separate elements these two could be tree trunks.

(D) Branches more or less.

- V 7. Well, if you take these two elements, look rather like Hottentot heads.

(D) Bottom heads Elongated skulls.

Card IV. 3"

- I. Looks like one of those flat fish (edging card). Don't know what they're called.  
(W) Sort of swimming along, the whole thing.

<sup>3"</sup>

1. Looks like some monster of some kind. Like some monster coming this way, at you. Feet and hair kind of body, two withery arms, withered arms, face, nose, two eyes, slit for mouth.

(W) Legs, hairy body, grotesque.

*Tom*

4. These two things look like skulls.  
(D) Very Negroid looking, elongated heads.

That's about it.

4. These two things look like skulls.  
(D) Very Negroid looking, elongated heads.

5. This way looks like fanciful dogs with enormous tails.

- (top D) Tails terribly long, more than usual number of legs

6. If you separate elements these two could be tree trunks.

- (D) Branches more or less.

- V 7. Well, if you take these two elements, look rather like Hottentot heads.

- (D) Bottom heads Elongated skulls.

V 2. Fanciful animal shape with the head and wings and tail. Sort of a backbone.

(W) Bat-like with sort of a dragon head. Backbone structure. (Fc)

with tusks here.

3. This again looks sort of clownish to me, like a clown sitting on a tree stump. Enormous shoes and withered arms.

(W) (M) Looking at it more or less from ground, legs look enormous, head flat, funny long nose.

4. Again I see animal, looks sort of like a seal or sea lion with mouth open.

(D) Form.

That's all I see in it.

2. See a colonial hat on top of the thing. Taking this thing separately, looks like the head of an animal, something like a . . . the deer family. Looks dead, with the eyes open.

(D) Just lying out. Deer family. Maybe

with tusks here.

3. Or like a fish, maybe a dead fish.

(D) Long, imagine it would be longer than this, just head. Dead, too.

4. I see a boot and I thought it looks like Italy but not really like Italy. Italy and a boot look similar.

(D) Just looks like a boot you pull on.

5. Then this thing looks like a skin, whole thing looks like fur of some animal.

(W) Taking things as a whole, thought most of it upside down. Head (usual bottom) and skin. (Fc)

That's about all.

Card V. 4"

V 1. This is butterfly shape. Could also be a bat shape.

5"

1. Right there I see a bowler hat. Brim and top.

*Dick*

- (W) Butterfly this way ^, bat this way V.  
 2. Two terribly indistinct individuals leaning against something in the middle.  
 (W) Legs, body, heads really not there. Feeling of leaning. (?) No. (man or woman?) Either.

Don't see much in this.

- 2 I get a center of gravity at the middle of it and then I can imagine someone swinging the other objects around. Someone standing in the middle and he's got these objects and he's whirling them around.

(W) This the center, maybe this could be a man, swinging things around.

(Add: Now I see possibly two little faces. Also, something like a vulture, big wing span.)

That's about it.

3. Part of it could be a view from the air of a lake.

(W) From top without appendages. River runs through it.

- > 4. Again if you neglect that, looks like a root or vegetable growing in the ground, like a funny-shaped potato.

(W) Root hairs. Just the root, cut off where it comes out of ground.

Card VI. 7"

1. If it were in color, could be a lovely crystal formation. Could be something under a microscope, blob of protoplasm.

6"

1. This looks like a canal, an air photograph of a valley, very straight canal in center, black part denotes cliffs, white part like high moun-

- (D) Symmetrical in every way.
- tains.  
 (center D)
2. Base has looks to suggest texture of wood  
 Could be base to those Indian . . . what are  
 they . . . totem.  
 (D) Has very much the feel of wood with-  
 out bark on—stripped wood or driftwood.  
 This, the totem. Shape gave me idea of  
 totem.
- V 3. Could be an imaginary flying animal coming  
 out of its imaginary cocoon In which case,  
 animal could have four whiskers and two eyes  
 and little dent on top of head.  
 (W)
4. If you take everything away and just look at  
 center shape, looks rather rectal  
 The slit which becomes progressively  
 darker as it goes on
5. Thus way looks like symbol a court jester might  
 carry—court jester figure—funny headdress  
 (W) Handle, eyes here, head coming out.  
 (Jester head on a handle)  
 I think that's all on this one
- 2 Top of it looks like a totem, some kind of a  
 totem of an animal.  
 (D) Top with feathers stuck on totem.
- 3 That's about all, see a different object in here,  
 black object, pretty symmetrical, could be a  
 mace or something, ceremonial part of office.  
 (center of top D) Made out of wood or  
 gold. Mace of office
- 1 Looks like sort of a land, sort of a map, two  
 1 Looks like two people looking at each other.

Card VIII. 7"

5"

## PREDICTION OF OVERT BEHAVIOR

Tom

Dick

- identical peninsulas jutting out Design for  
an airport with just landing area mapped out  
(WS) This is water (S)
- V 2 Looks like a Klee Drawing Sort of whimsical  
humor cause it looks like figures jumping up  
and down hands extended and legs down here  
Legs arms enormous head tiny eyes If  
you pulled this together or filled it out  
you'd get more of the figure
- Λ 3 Then it looks sort of like a crab with its insides  
out just shell like stuff left  
(W) Form
- > 4 This looks like a toy dog that's been rather the  
worse for use  
Head body legs Arms gone
- < 5 This could also be Scotties Scotty dogs  
(D) Shape of head and long hair hanging  
on them
- 6 These could be elephant heads  
(middle D) Shape
- V 7 And total thing archeological remnant of a
- (D) (P) One could be a man and one a  
woman
- 2 Could be two chairs, too That's the back of it  
(D)
- 3 This looks like an anus  
(bottom center D) Talking it head on
- V 4 This could be a spring of some kind rocks  
here and a spring coming out of it This  
water  
(D) Rocks water coming up filling  
up hole
- V 5 Could be a bullet right in here coming  
out, end of a gun  
(D) (m) Looks like end of gun, pro  
jectile coming out

figure, a female figure.  
 (W) Head gone. Leg, body, behind, head  
 gone. Feminine grace to it.  
 That's all I get out of this one.

- Card VIII. 6"  
 > V 1. That's pretty, pretty pastels. "That's sort of a flower. This part sort of thistley, with flower opening above it.  
 (W) Flower. (CF)  
 > 2. This could be a primitive animal getting from one rock shape to another.  
 (FM) Like a prototype of a dog (P)
- 3" 1. Looks like two chipmunks climbing up a tree.  
 2. I like the color in this. Looks very geological to me--have below the earth, closer to the earth and a tree growing out at the top.  
 (W) Could take as a whole but not thinking of it. Shape of a pine tree.  
 That's all.

3. This could be a bird with two eyes and beak although this bird is dressed in a fur jacket.  
 (D) (Fc) Orange and pink. Looks funny cause like a fur jacket. Quality of fur.  
 That's all.

Card IX. Course that's pretty too, same colors as last one.

- g" 1. This way looks rather atomic, famous mushroom cloud on top, looks as though coming out of a volcano.  
 1. Oh, this looks very fantastic, like something out of a fairy story. These look like two dragons. This looks like a fountain in the middle

## PREDICTION OF OVERT BEHAVIOR

*Dick*

- (D) (Fm) Exploded down here, exploded up there

*Tom*

between them.

(W) Image (orange), eyes, nose, mouth. Water. See water coming up here, refraction like water looks thinner here. Comes up as one stream here. Coming out of deep earth. (Fm) Very deep.

- 2 In the middle see sort of a petrified goat shape, billy goat with whiskers, the head anyhow.

(D) Looks like in rock, surrounding area like rock.

3. And again, archeologically this looks like sort of a very primitive man head or from later period like a shrunken head.

(D) (usual heads) Texture.

- 4 This part looks like way Canada is, maybe color reminds me of a map. But shape is little way like eastern part of Canada. But the thing as a whole is sort of an atomic symbol to me. (D, green)

And that's that.

*Card X.*

8"

1. All looks like little organisms Caterpillars at the bottom.

(D) Shape and green.

*7"*

1. This looks like a sea scene—all kinds of shells, and seaweed.

(blue) Seaweed, jelly like substances.

2. Brueghel-like figures up here—imaginary animals.  
 (top D area)
3. Here's what I'd like a Mexican jumping bean to look like but it doesn't.  
 (top green area) Shape.
4. And these two look like flying mice.  
 (FM)
5. And these two look like star fish.  
 (D, blue area)  
 All look as if they're going up into the center—all the animals.
- V 6 This looks like . . . on flowers . . . the stems, the things that hold the pollen where the bees come.  
 (D, orange) Pollen on it—only two of these.
7. This looks like legs sticking in the mud.  
 (blue in red) Legs pulling in mud.
- V 8. A nice design—middle thing could also be a mask of some sort carrying out the human
2. These two look like little horses, brown things taking off at great speed, front feet flying.
3. These look like almost human images, blowing up something like that, maybe a life belt.  
 (M) Blowing this up, almost like goat skins.
4. These look like two little people from Mars. little antennae on heads, arguing with each other.  
 (D) (M)
5. These two look like bulls, taking off upwards.  
 (D) (FM)
6. And these two look like two caterpillars.  
 (D, top green)
7. And back of that looks like a rabbit, ears sticking up.  
 (D) (F)
8. And these two could be lions, yellow things.  
 (D) (F)

*Dick*

- characteristics Has two eyes, internal bridge  
work of nose teeny mouth here  
(DS, blue for eyes, orange for nose)
- V 9 A very interesting one A immature Eskimo 9 And this looks like part of a wind measure  
floating down with huge bolts of cloth waving  
in the breeze  
(M) One of those parkas on, white fur  
And that's all I see in that

*Tom*

- A very interesting one A immature Eskimo 9 And this looks like part of a wind measure  
floating down with huge bolts of cloth waving  
in the breeze  
(D)  
I think this is the prettiest of them

## RORSCHACH TEST

RE EVALUATION (1959)

Dick

Is thus the Rorschach again? Good!

Card I

17"

I Looks like an inkblot (smiles) It looks like some sort of a ballet to me and in the center are two female figures, back to back with their right or left hand raised above their heads And the large fan shaped thing in front of them is some sort of curtain and they're doing some sort of stately dance in back of it

(WS) These are the figures here with hands raised hands raised, heads (Why female?) The breast here and the skirt In back of this curtain that has holes in it doing a dance in back of it

- 2 And the thing as a whole could also become sort of mask  
 (WS) The whole thing The eye slits This could be tie around the back (side D)

Tom

4"

I That might be a moth with the feelers in the middle on the top and two little claw like things The thing's a moth 'cause it's not in color and it doesn't look like a butterfly but it's the same general shape

(W) Well, the fact there are two wings here, things that look like wings In the middle, appear to be feelers I associate that with winged things, like butterflies and moth Color whitish color like a moth Moths are colorless maybe have color if you look at them under a microscope If it had been a color, then more like a butterfly to me

- 2 Now looking at just the middle segment of it, the stem of it the bottom could look like feet and the legs go up and then as you advance further up, you have the thighs, and it almost looks like part of a human body Say

*Dick*

3. If you hold it sideways, the end looks a little like a map of India spilling onto India and China.  
 (side D) It's here. (outline) (?) This shape, which is India.  
 I think that's all I see on this one.

$V > \wedge V$  4. And upside down it looks a little like a Klee (K-L-E-E) figure--a little man with his arms stretched out.

(W) The whole thing, really. (Points)  
 Arms (side D), legs, the head, these are the eyes (top S), distorted sort of nostril

*Tom*

behind a shower curtain, behind some transparent curtain of some kind.

(W, usual human) Shrouded by a curtain. Feet down here, calf, thigh, hips. (?) Looks like a woman. (?) Curvaceousness and with the thighs. Looking at a woman from the back incidentally, not facing you, and she'd be nude.

3. Now, if you look at just the top of it, the top part, and you more or less disregard what I called feelers before, then you could regard it as a river bed or something like that with steep slopes on the side.

(DdS) Have to cut this out (top side S). Picture of a river bed, river would flow all through here, and this would be the sides of it.

That's about it.

forms (bottom S).

5. This part, the nodules at the bottom, in an upside down position, look like some parts of an insect.

This looks like sort of their hands, sort of lobster, any little insect.

6. Boy, the longer you look at it, the more things you see in it. Again upside down, the central column like, looks like . . . well, don't know what it is . . . an eagle without any feathers on or something like that.

Eagle without any feathers on it. Head, very emblematic type eagle. (?) Like a coat of arms type eagle. (?) I suppose the head, the way the head's turned, just the flatness looking of it.

Card II.

2"

1. Dancing bears, two dancing bears.

(W) The heads are not very well defined and their paws are touching (?) The general bulky shape and sort of looks like a fur texture, you know. Sort of a playful clumsiness about them that I think looks like bears.

12"

1. I think the last time they looked like two clowns dancing and this time they look like the same thing. The red upper part being the head with funny caps on and the lower parts go into the feet. Clapping hands.  
(W) The whole thing. Heads, hands, arms coming together, feet. (usual clowns) In baggy clothes (?) Men clowns. Well, I

*Tom*

**don't know of any women clowns.** Clowns

- are generally men.
- V 2. Upside down looks like sort of flying pheasant bird with a very small head . . . (long delay)
    - (D) Looks like a bird head (middle D) and the shape looks like some sort of wing formation. (i) Shape like out stretched wings.
    3. Upside down, the top red part looks like the skeleton of some sort of goat or garelle, with the horns sticking up
      - (D) Looks like thin face, like some garelle or goats have. It's completely bilateral, would you say?
    4. And again upside down, the bottom two red things look like clown's feet.
 

Front part, like sort of floppy big feet, sort of standing on its toes almost. In red shoes or containers. Feet coming out—

*Dick*

2. 'Then I see distinctly two bulls' heads or two calves' heads. You know, two heads of the beef family. If you take away the red part on the top, the ears would be on the side.
  - (D) That's very distinct. Take these things out. Head, neck, eyes, snout, chin part, coming into the body down here.
  3. And you'd have to disregard the middle section although this would be where their tongues were if their tongues were hanging out. Would have to take that part away. Bulls' tongues aren't formed that way.
  - (Disregarding S) Reason I said clowns rather than priests is that the red makes them look happy or like dancing, like something is going on.

That's it.

white area here, flesh colored.  
I think that's it.

5"

Card III. 2"

1. That's again a sort of ballet bit, with two . . . well, I don't know, could be men, could be women . . . they look African.
2. In the middle is a butterfly or bow tie . . . sort of hanging there, floating there between them in the background. Could be a butterfly or bow tie or piece of macaroni. They're holding some sort of prop between them.

The wings made it look like a butterfly. Center thing tied something like a bow. Or like a piece of that shelled macaroni-like.

3. And if it is an African ballet, the prop could be sort of a witch-doctor thing. The red blobs on the right and left are just decorative designs.

(middle D) Like a stool . . . something

I think that's it.

5" This looks like two fellows, each holding a

1. That's again a sort of ballet bit, with two . . . well, I don't know, could be men, could be women . . . they look African.
2. In the middle is a butterfly or bow tie . . . sort of hanging there, floating there between them in the background. Could be a butterfly or bow tie or piece of macaroni. They're holding some sort of prop between them.

This looks like two fellows, each holding a bowling ball. (usual H) Here are the two fellows. Bowling balls down here.

2. The two red items on the upper extremity of the picture look like parrots upside down, heads showing. They're feathery and they have a long tail. Like parrots upside down. Inverted. hanging from their tail, head, tails—feathery things. (?) Shape, think the color has something to do with it too. Parrots are bright colored—different colors but mostly red feathers.

3. The middle part, the red part, reminds me of a pair of lungs because they're shaped that way and because I understand lungs are made out of a soft rubbery tissue and that's what these things look like.

*Dick*

you carry around and dance with. Just some stage prop. Looks sort of like eyes. There's a mouth. This looks like the nose bone. You know, witch-doctor's mask or face. (side red) This would tie in the center red—be on a backdrop—decorative design.

- V 4. Upside down, it looks like sort of hobgoblin that you might see in . . . well, it makes me think of Walt Disney's Fantasia from Night on Bald Mountain—one of those characters. (W) The whole thing. These are the arms, eyes, nose, part of the body of this one hobgoblin.

5. Ah, these sections here, upside down look like, oh, muskrats or beavers or some animal of that type. These are muskrats or beavers. The snouts. (?) Just basically the head dissipates itself into the body and then it doesn't become that any more.

> 6. If you hold it this way, the red spots on either

*Tom*

(D) Thing in the middle. On the copy it's more like an x-ray but on original looks more like a lung itself. 'Cause a lung is made up of red tissue. But the thing that makes it a lung primarily is the shape of it.

4. The heads of these two guys look like . . . Negroid, like Congo long-heads. (?) Congo "long-heads," which is the tribe that binds the head at birth or later on, I believe, to make it a long shape.

Like Congo long-heads because of shape of head.

5. Now if you followed up the idea that these two people being people (and they look like people to me), then you'd say they are attired in some kind of formal dress, like an Edwardian tuxedo—in other words, a lacy shirt and like a dinner jacket.

Looks as if in formal dress, white ruffles (usual chest area)  
That's about it.

end look like little dogs with enormously long tails and being rather surprised how long they are.

(D, side red) Some sort of poodle dog. Shape. Head turning and looking at the tail. These are the legs down here. That's all I see. You timing it?

Card IV. 1"

1. This looks like a clown with very big feet and a little head and he's sitting on a tree stump and the view is from the ground up so you get a lot of foreshortening which makes his legs look bigger.

(W) The whole thing. These are the legs. Sitting on a tree stump. Big legs going up into the torso, little arms, like this (imitates), head.

8"

1. Now, can I interpret anything I want to into these things? Now, I've either heard or I figured out after seeing that these are supposed to be the father image of the Rorschach test, and I do remember the last time I looked at it, it seemed very threatening—you know, what's needed around here is shorthand—and it doesn't now. I recall distinctly what it looked like to me the last time I saw it and if I remember right, it was some kind of a furry monster with an 18th century military hat on. And that time I also remember seeing eyes, and a nose, and a large slit for a mouth underneath what I called his hat, his tricorned hat. Well, I don't know, I'm not coming into this fresh 'cause I recall what I saw in it the first time.

## PREDICTION OF OVERT BEHAVIOR

*Tom*

If I had not seen it before, I don't think I'd see what I see in it now. Now it looks like a rather symmetrical blob. The tentacles look like something you might see on a weeping willow, or some kind of a vine hanging down from somewhere.

(D) Of a vine or something.

2 But I think the thing is drawn in the way it is in order that it should or could or does lend itself to some anthropomorphic creature of some kind. Like the two bottom things look like two big feet and the tentacles could look like two skinny arms and as you go up, you could then see a head but I think that's because you expect it to follow in some way the human form, to have some of the characteristics and crudely drawn, all out of focus and so on.

(W) The beast! The eyes, the nose, the mouth, this the tricorned hat, like they wore in George Washington's day. Feet (boos) and shriveled arms. Caricature. Looks like fur, the texture of the thing.

3. The little appendages that were the arms of 3. Now the thing at the bottom here is a boar's

*Dick*

V 2 Upside down, it looks like a flying dragon, a mythical flying dragon Head (middle). A mythical animal, to be sure. Wings, flying.

head, take that of context, looks as if it has the two tusks, two teeth in middle, two eyes and you're looking at the top of the head down, and it is looking up at you. Looks more like a stuffed boar than a live boar.

(middle bottom D) (?) The tusks primarily and a boar I always associate with tusks. A wild boar, two eyes, ears. (Why stuffed?) Maybe 'cause you just see the head, like looking at a tiger rug.

1. Oh, then the appendages that were the feet, if held sideways, look like seal's heads or some sort of dog's heads, barking. Look equally like both, depends on how you're looking at them. Looks like poodle dog or seal—like not have much texture—like just flat. Looks like both. That's all.

the clown if you look at them sideways, looks like the necks of swans, necks and heads of swans.

Black swans. (?) Look alive. I've seen them in Central Park Zoo looking like that. (?) The shape.

Card V.

10"

1. That again looks like a flying creature of some sort, maybe a big moth or a bat.
- (W) More like a bat. Guess a bat has irregular wings, although I've never seen a bat but I think that's how bats look.
1. This again to me has some kind of a moth or butterfly shape . . .
- (W) Extended wings.
- Oh, I remember very well what I saw in it the last time again. First in the center of it, like in the first picture, you get out of it, the shape

## PREDICTION OF OVERT BEHAVIOR

*Dick*

If I had not seen it before, I don't think I'd see what I see in it now. Now it looks like a rather symmetrical blob. The tentacles look like something you might see on a weeping willow, or some kind of a vine hanging down from somewhere.

- V 2 Upside down, it looks like a flying dragon, a mythical flying dragon  
 Head (middle) A mythical animal, to be  
 sure Wings flying

(D) Of a vine or something 2 But I think the thing is drawn in the way it is in order that it should or could or does lend itself to some anthropomorphic creature of some kind. Like the two bottom things look like two big feet and the tentacles could look like two skinny arms and as you go up, you could then see a head but I think that's because you expect it to follow in some way the human form, to have some of the characteristics and crudely drawn all out of focus and so on.

(W) The beast! The eyes, the nose, the mouth, thus the tricorned hat, like they wore in George Washington's day. Feet (boots) and shriveled arms. Caricature Looks like fur, the texture of the thing

- 3 The little appendages that were the arms of 3 Now the thing at the bottom here is a boar's

head, take that of context, looks as if it has the two tusks, two teeth in middle, two eyes and you're looking at the top of the head down, and it is looking up at you. Looks more like a stuffed boar than a live boar.

(?) The tusks primarily and a boar I always associate with tusks. A wild boar, two eyes, ears. (Why stuffed?) Maybe 'cause you just see the head, like looking at a tiger rug.

Black swans. (?) Look alive. I've seen them in Central Park Zoo looking like that. (?) The shape.

1. Oh, then the appendages that were the feet, if held sideways, look like seal's heads or some sort of dog's heads, barking.  
Look equally like both, depends on how you're looking at them. Looks like poodle dog or seal-like not have much texture—like just flat Looks like both.  
That's all.

Card V.

10"

1. That again looks like a flying creature of some sort, maybe a big moth or a bat.  
(W) More like a bat. Guess a bat has irregular wings, although I've never seen a bat but I think that's how bats look.
1. This again to me has some kind of a moth or butterfly shape . . .  
(W) Extended wings.  
Oh, I remember very well what I saw in it the last time again. First in the center of it, like in the first picture, you get out of it, the shape

## PREDICTION OF OVERT BEHAVIOR

*Dick*

2. Could also look like two dancers, back to back in very fluffy big costumes  
(W) Leaning against each other. Fluffy costumes 'These don't come into consideration (middle D extension--cutting off top and bottom extension). Whole things without these (side extensions).

*Tom*

- as though it were behind some transparent curtain and that is the shape of a bowler hat.
2. Now if you start with the idea of a bowler hat, then you say well there's a man and his arms are stretched out behind all this fluff, probably holding something and by there projecting them you get the idea of motion and if you put a man under this bowler hat you can think of him holding on to two things, holding on two things and swinging thing around.

(W) Here would be the bowler hat (points). Once you take this as a bowler hat you can easily assume under the hat is a man. Swinging--could be anything, got to be swinging them 'cause if not, they would be down rather than on an angle like this. So he'd have to be swinging them but what he is swinging is entirely unclear.

3. Upside down it looks like a moth, too, or a bat.  
(W)

I cannot relate to anything . . . unless you think of the things as a whole as some flying object like some moth, and those two protuberances would be large feelers, and, by the

same token, two things on the bottom would be two feet.

(W) The whole thing. I think that's a singularly uninteresting picture.

4. And sideways it looks like an aerial view of a lake.

(W) Rivers running into and out of them.

5. Could also look like an early design for an air

plane wing.

Shape. Fuselage would go some place here.

That's all I see in that.

Card VI.

3"

1. That looks like a totem figure at the top. Like an Indian totem figure.

(D) Shape.

1. Now, ah . . . top of this one looks like a totem. It looks like it could be some representation of an animal head. A weasel or something like that and just below the head, branching out, would be the feathers of a hawk or something like that, and this top would be a totem of some Indian tribe.

(top D) Very definite weasel head. They use an animal for a totem. They have feathers. Whole impression. Immediately I thought of a totem. Trayed like this. Shape of wings.

## PREDICTION OF OVERT BEHAVIOR

*Dick*

2. Bottom part looks like an animal skin that you might have in an Indian's tent. I don't know, do they have any skins in Indian tents or on the floor? Maybe some rug. Make it an animal skin. That's all I see basically—let's see what else I see.

These could be legs, arms, bilaterally. Texture of a rug or skin. Just some animal's skin.

2. Bottom part looks like a jelly fish. The point with the line dividing it in half. That's about it on that one.

(bottom D) (?) The texture of it, sort of like jelly, as if you'd do this (pushing in to demonstrate) on the real thing, it would push in. Then I couldn't see why there's a dividing line in the middle. That doesn't . . . jelly fish doesn't permit too much of a line in the middle. Look at it as a jelly fish would have to take out the middle line. Or like an amoeba. If you take it as an amoeba, can leave the middle line in 'cause it's in the process of splitting itself apart.

3. If you hold it sideways, it looks like a rather distorted map of the United States. You know, each half.

(D) Shape This looks like Florida; this looks like East coast. Sort of distended but basically Florida.

4. The totem top looks like it has . . . maybe

*Tom*

wings and the head of the totem thing looks like a pussycat head. Little whiskers. (Long delay)

5. The center section like sort of anal to me.  
(center D) The cleft and sort of like it's going in—a curvature on each side.

Card VII. 9"

1. This sort of like a crustacean of some sort. Some sort of shell fish remains that you'd find on the seashore.

(W) The whole thing. A crustacean is a shell fish of some sort, isn't it? A shell fish of some sort. If it were together, it would look like what you find on the beach. Looks shell-texture-like. Falling apart, disintegrating.

40"

1. Can I turn these things around any way?  
Well, this one doesn't make any sense to me either way, any way I turn it. It could be like two heads looking at each other. Like maybe two heads carved in stone. It's been raining and there's some ice forming on the foreheads.

21" Do . . .  
(D) Chiseled out of stone. Doesn't look very much like actual heads, but like sculptured, rough-hewn heads.  
(f) Either one, maybe more like girls, more hair up here.

V 2. Upside down, it looks like two vaudeville ladies doing a dance, doing sort of bumps and grinds, not grinds but bumps. They have very elaborate handdos and they just wiggle their posteriors.

(W) Whole thing These are heads,

V

2. In turning the thing upside down, it might be a crosscut of part of the earth, and it's sort of a view of a volcano, shooting off steam and lava. But the thing as a whole doesn't mean very much. This thing you have to take in sections to get

## PREDICTION OF OVERT BEHAVIOR

Dick  
trunks. Behind here. This the skirt.  
These are the legs.

Tom

anything out of it. If you take these as two heads looking at each other, these things don't mean anything, the two things coming up from out of the head . . . Unless they're two pony tails caught in an updraft, standing straight up.

Turn the thing upside down . . .  
Heart of the volcano, coming up, like  
Lake of lava (middle area) spray up  
here. Like cross section of the earth.  
That's about it on that,

3. Side shapes, as such, upside down, this here looks like a lady elephant, I think.  
This part of the trunk. I said lady elephant 'cause I still remember the skirt-type, Very fanciful but the head looks like an elephant. The eyes, trunk.  
That's all I see in this one.

Card VIII. 10"

1. Very pretty colors. Over all, they look like an abstract design.  
(?) I don't know. The pretty colors—I didn't see anything in particular, just abstract form to me. I didn't see par-

3"

1. Well, I like the color in this one. Very pastel.  
The middle thing looks like a tree and the two outside things look like pink . . . let's see, what are those animals that build dams? (Beavers?) Yeah, beavers climbing up this tree

ticular objects or what have you.

-pink beavers climbing up either side of the tree. The whole thing a little frosty. Maybe that's because of the color. And, ah, sort of delicate.

- (D) Shape of it, because it branches out this way. There are the two beavers climbing up. Looks very wintery. I think that's because of the color, almost looks like there's a frost on everything. Looks like a pine tree.
2. Or it could be some sort of frozen dessert, I suppose it would melt. It couldn't stand up like that.
- (W) This looks like orange ice cream, this looks like strawberry ice cream, and this looks like some sort or other. Whole thing could be frozen ice dessert. Colors and textures look like ice cream.
- > 3. If you hold it sideways this looks like some sort of animal, the reddish outside things, climbing climbing from one rock to another. Some sort of badger-like or rat, or mouse . . . or otter.
- (D) Furry animal, like an otter, beaver, or rat, or mouse. (?) No—if I remember what an otter looks like, I think it looks
2. Maybe say the tree is growing up out of the ground and the bottom is sort of cross section of the ground it's growing out of. Looks like some kind of pine tree.
- This would be the ground and rock (orange and red). Like ground part, cross section of roots getting water from here, from the moisture in the ground.

*Tom**Dick*

- V 4. Upside down, the shape on the top looks like a bird with heavy fur and long back and tired-looking eyes and it's balancing on its "coccyx," is that something?

Orange and red. Fanciful bird. The bird is because it's got such a beak. Beak here. (middle) Looks like fur to me, furry bird. Or it might be the abominable snowman. 5. And upside down further down it looks like sort of vertebrae

(usual D) This. (points)

6. And again, upside down, the bottom sort of blue green area could also be a bird with its wings extended. Boy, I sure see a lot of animals (laughs).

Again a bird with a very long face and very big wings. Shape of the head and the fact that it looks like wing shape. I think that's all I see on this one.

Card IX. 7"

1. Basically the same colors as the other one. Again the main thing is the abstract design of some sort.

<sup>2"</sup>

1. I remember this picture from the last time I looked at it, and last time I looked at it, it looked like two dragons on each side of a

fountain and I still sort of see that . . .

(side D) Two dragons, one and two. Drinking water or . . . yeah, sort of enjoying each other on either side of the fountain.

2. If you hold it upside down, it looks like, well, the top looks like an atom bomb could, or whole thing looks like an erupting volcano or else the atom bomb cloud. Shape looks like an ostrich feather, big fan.
- (D) Looks cloud-like. Mushroom shape and these folds like puffy, like clouds. The whole thing. I'm taking general views of these things. This the volcano and this the erupting bit (red), feeling of pressure. Shape and color. (f) Color has a great deal to do with it.
2. I'm trying to see something new in it now.
- V You turn the thing upside down the pink area looks like a cloud . . . that's as far as I got with it.
- (?) I think I'm projecting now 'cause I like to look at fountains and I think when you look at a fountain it's a nice thing to look at.
3. And right side up, top orange things look like some sort of laughing goblins. These shapes, eyes, mouth, this the fanciful nose, this the fanciful ear.
3. The things in the middle still look like a fountain to me and hard core of the water shooting up is sort of greenish and then the blue surrounding it is like a spray, like you see in fountains sometimes.
- Well really it looks like an atomic cloud, with the present frame of reference. One of these mushroom clouds. Shape of it.

*Dick*

- most like what I think an otter looks like.
- V 4. Upside down, the shape on the top looks like a bird with heavy fur and long back and tired-looking eyes and it's balancing on its "coccyx," is that something?

Orange and red. Fanciful bird. The bird is because it's got such a beak. Beak here.

(middle) Looks like fur to me, furry bird  
Or it might be the abominable snowman.

5. And upside down further down it looks like sort of vertebrae

(usual D) This. (points)

6. And again, upside down, the bottom sort of blue green area could also be a bird with its wings extended. Boy, I sure see a lot of animals (laughs).

Again a bird with a very long face and very big wings. Shape of the head and the fact that it looks like wing shape.

I think that's all I see on this one.

Card IX. 7"

1. Basically the same colors as the other one.  
Again the main thing is the abstract design of some sort.

2"

- I. I remember this picture from the last time I looked at it, and last time I looked at it, it looked like two dragons on each side of a

*Tom*

in flowers . . . well all those things around that the bees go to, one to the other.

(orange D) I don't know what you call them, you know they're in flowers; there are lots of them.

4. Then straight up, odd-shaped creatures that look like from a Brueghel painting, all head and three little legs.

(top D) The color and the shape. Wicked little mouth, eye.

These things are horses. They're taking off.

- t. At the top of the pink part I can recognize like little fantastic creatures like you might see in a comic strip-like "lead me to your leader, I'm from outer space." Growing antennae from their heads. Talking to each other in outer space language.  
(top D) I'll call them Saturnians, more like creatures from outer space, half-plant, half-animal. Jabbering in outer space language to each other.
5. Got three or four feet apiece and the two blue things on the outer edge look like sort of plant life. Something like that coral life that's nourished by the sea.  
(side bottom D) Sea scene to begin with, sea shells.
6. And to the left of that the blue areas look like some fantastic octopus, octopi? octopuses? Or put ink spots!  
(D)

Dick

(outlines core of fountain and spray)

That's that

4 Oh I see a goat's head in it if you hold it sideways Sort of a greyish outline of a goat's head and neck and a little beard

(D) Shape

I think that's all I see

Card X

8"

1 Hm bottom the green things are two dancing caterpillars Bottom green Looks like wiggling, stand ing on end, and sort of wiggling (?) Color

2 And the green where it meets that could look like a squirrel head with dark green eyes, white nose and very long ears (usual rabbit's head) Just the light green and the eyes are dark green, nose, mouth, ears, or horns

3 And then going straight up, two orange green things look like flower pods no, not pods what do you call em? You know what's

Tom

5'

1 This is very nice I remember this too, from the last time It looks like sea shapes—like seaweed and crabs and things like that Seaweed—bottom green

2 The middle part of it I don't see as anything connected with the sea though I might have before, the large pink areas But I like this—nice and colorful Crabs—blue At first I thought of these as crabs Later, I thought of these as sea weed It louses things when you take away color

3 And all kinds of little animals seem to be busy in it Like the two brown parts look like very enthusiastic horses taking off

Really movement in the thing.

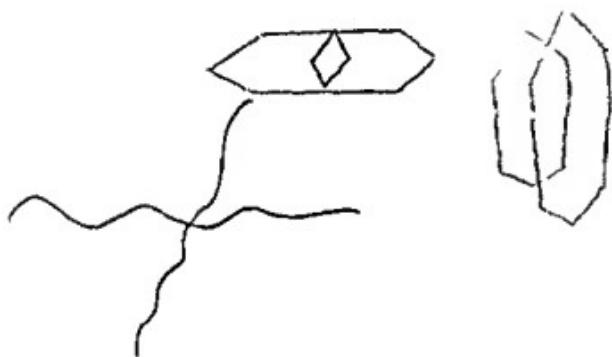
Like conch shell but very successful in this form, like they have little tongue on the top. This one looks more like it than this one.

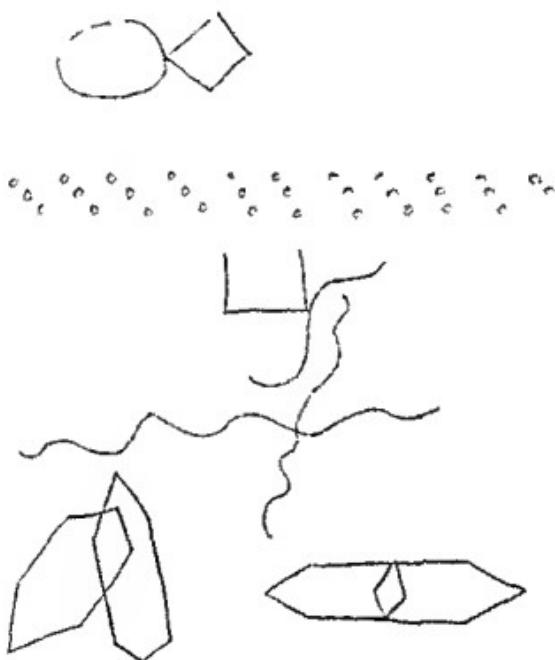
That's about it.

Add: In the yellow, looks a little bit like two lions with manes here. Here are the manes, here are the heads.

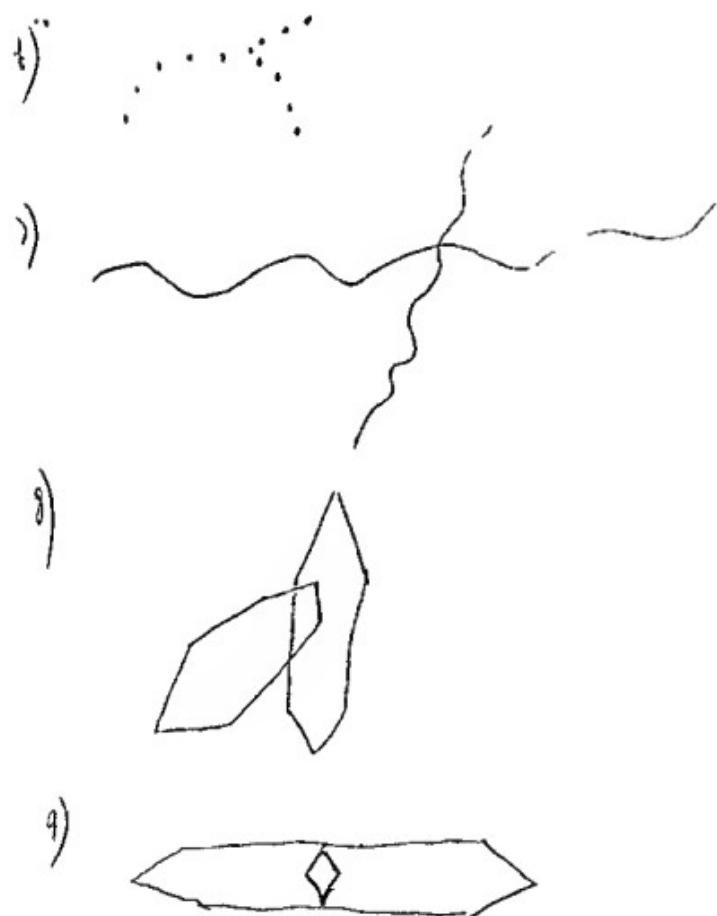
7. And in the center, the blue area, that again looks like the tiny figure of an old man waving two blankets.  
(middle D) (Old?) White hair, bent over posture.
8. And the orange things at the outside, they look like moles or Mexican jumping beans. Looks like moles—things that are on farms and make mole heaps. They have a snout with which they dig, here (points—side yellow)
9. And this . . . I don't get that, except the green, I mean the yellow part before the mole-like figures, looks like a map of Africa. (Africa?) Or South America, I don't know, one of them. They both sort of come to a

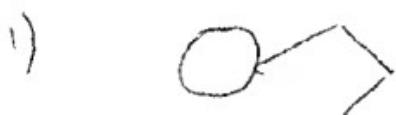
**RECALL**



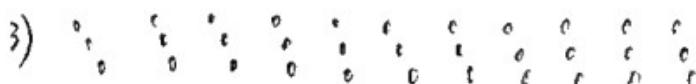
**DICK—BENDER-GESTALT TEST****INITIAL TESTING\*—1957**

\*The initial Bender Gestalt test was administered according to standard instructions followed by the subject's recall of the figures after an interval of 45-60 seconds.



**TOM—BENDER-GESTALT TEST****INITIAL TESTING\*—1957**

2)



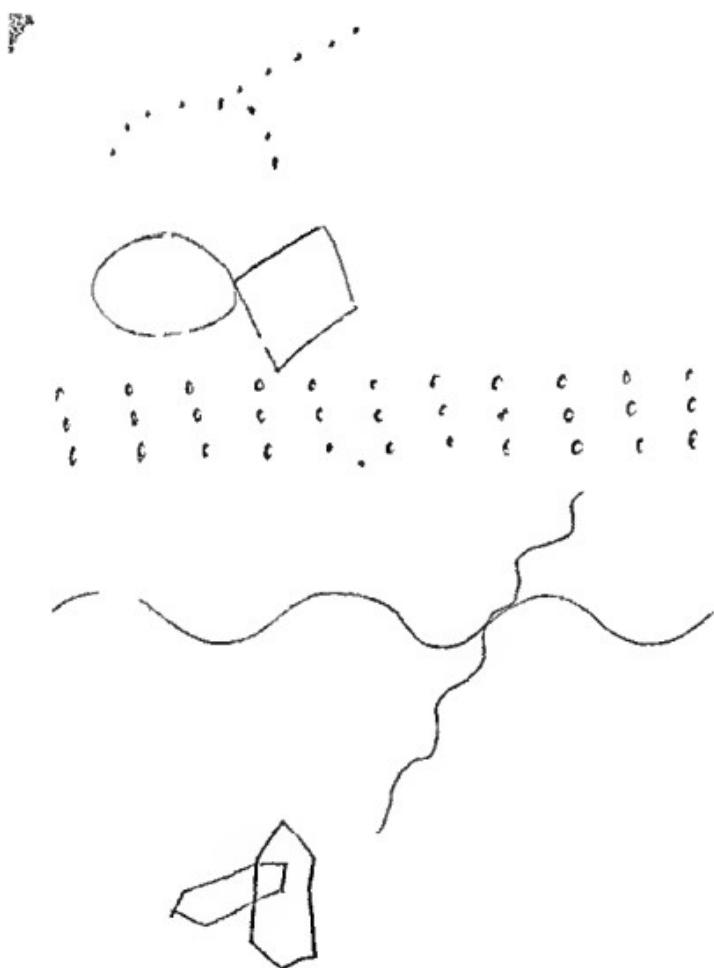
4)

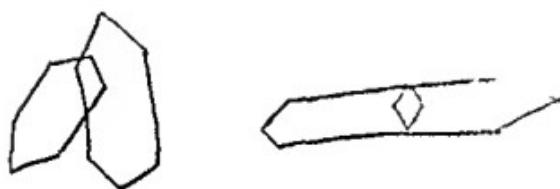


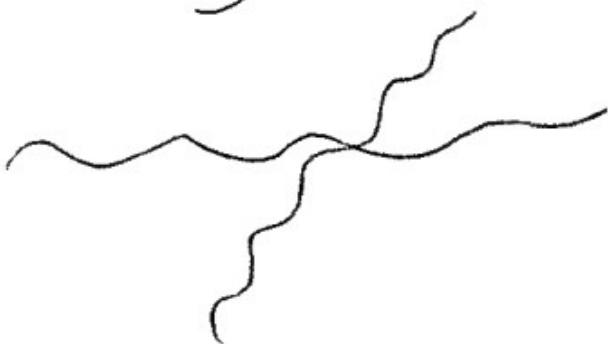
\*The initial Bender Gestalt test was administered according to standard instructions followed by the subject's recall of the figures after an interval of 45-60 seconds.



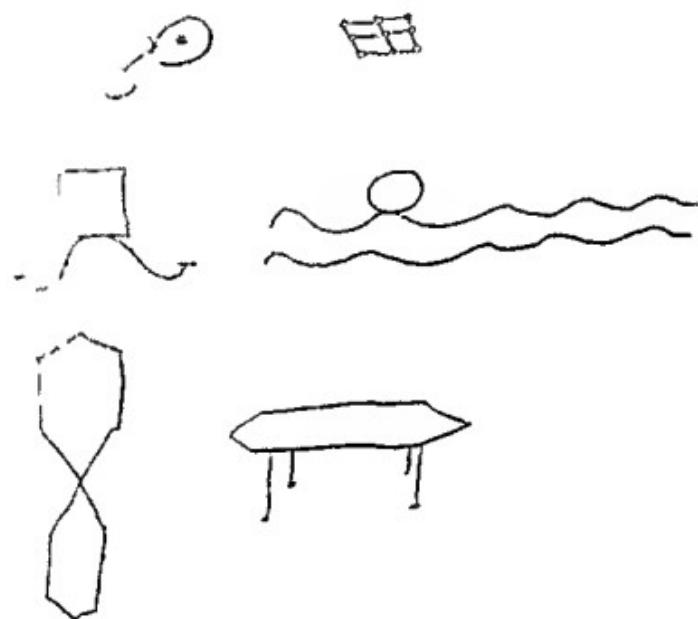
.....

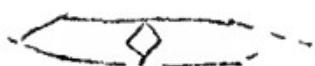
**RECALL**



**DICK—BENDER-GESTALT TEST****RE-EVALUATION\*—1959**

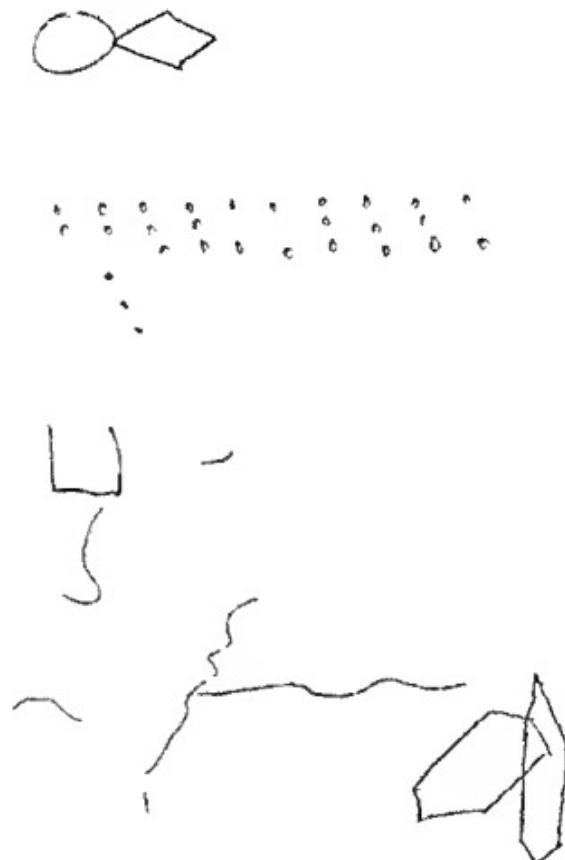
\*The Bender Gestalt re evaluation was administered by Miss Miriam Asher according to standard instructions followed by the modification suggested by Hutt in which the subject is asked to modify selected figures in any way that renders them more pleasing and then to state his associations to the original designs and to the modifications.

**MODIFICATIONS**



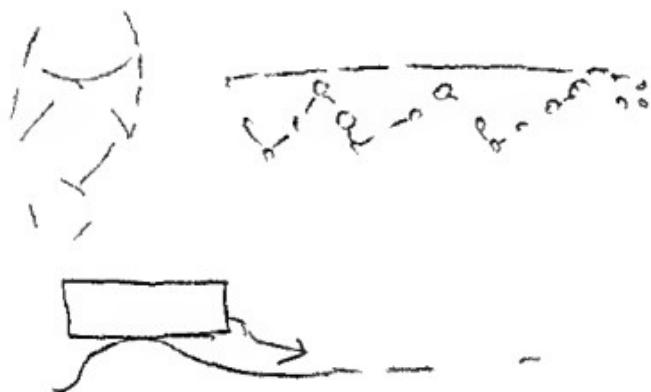
## TOM—BENDER-GESTALT TEST

RE-EVALUATION\*—1959



\*The Bender Gestalt re-evaluation was administered by Miss Miriam Asher according to standard instructions followed by the modification suggested by Hunt in which the subject is asked to modify selected figures in any way that renders them more pleasing and then to state his associations to the original designs and to the modifications.

## MODIFICATIONS



## ASSOCIATIONS

- A (O) It suggested something in imbalance and so I felt that the two should be left at a constant relationship to each other. Here they appeared to be sliding off.
- (M) It looks like some kind of painting within a frame in abstract painting (What makes it look like that?) The fact that this outside thing framed it (Else?) The frame also holds it together.
- 2 (O) It doesn't suggest anything. It's just a pattern and it wasn't going anywhere.
- (M) I just started doodling around and eventually ended up with this animal thing anteater thing and then I drew the ants as little dots (Else?) Those things really look like little wheels like it could move pretty fast if it wanted to (What's the relationship between the wheels and the anteater? Are they related?) Just in the sense that the wheels indicate mobility and in the way that I drew the anteater they were attached to the legs and I tie those two together.
- 4 (O) Something on a hill
- (M) So I thought I'd make it more than a square an incomplete square and I thought I'd make it look like something like a sled going down a hill (What makes it look like that?) It didn't seem to be sliding down a hill so I put an arrow there to indicate where it was going to go if someone gave it a little push (Else?) No.
- 6 (O) That reminded me of two crossroads
- (M) And then I thought that crossroads are not that wiggly and so I straightened them out and made straight lines instead (What reminded you of crossroads?) The two lines crossing
- 7 (O) I didn't think that meant anything together so I took it apart
- (M) At first I was going to draw a ballistic missile but then I thought they looked too primitive for that so I made them firecrackers that are about to go off (What suggests that?) They have a top a body and a fuse on the end This shape reminds me of some explosive



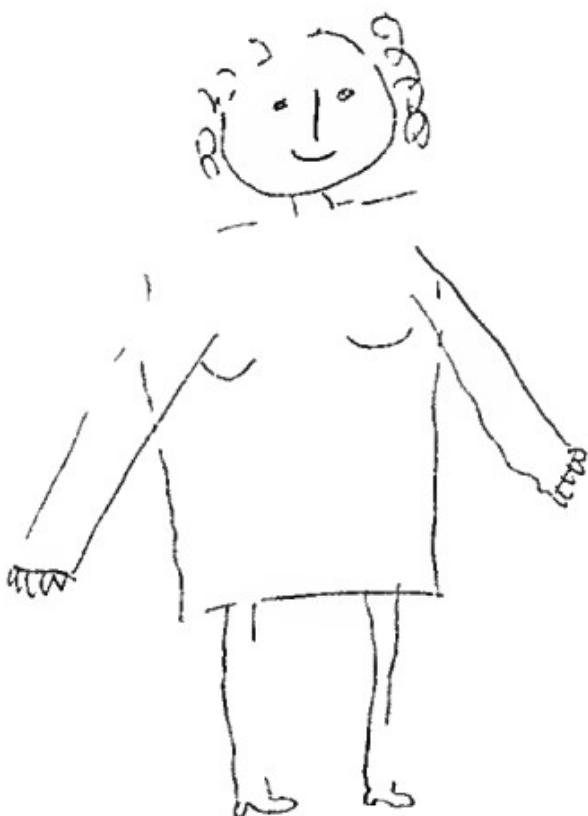
**DICK—DRAW-A-PERSON****INITIAL TESTING—1957**

**TOM—DRAW-A-PERSON**

**INITIAL TESTING—1957**

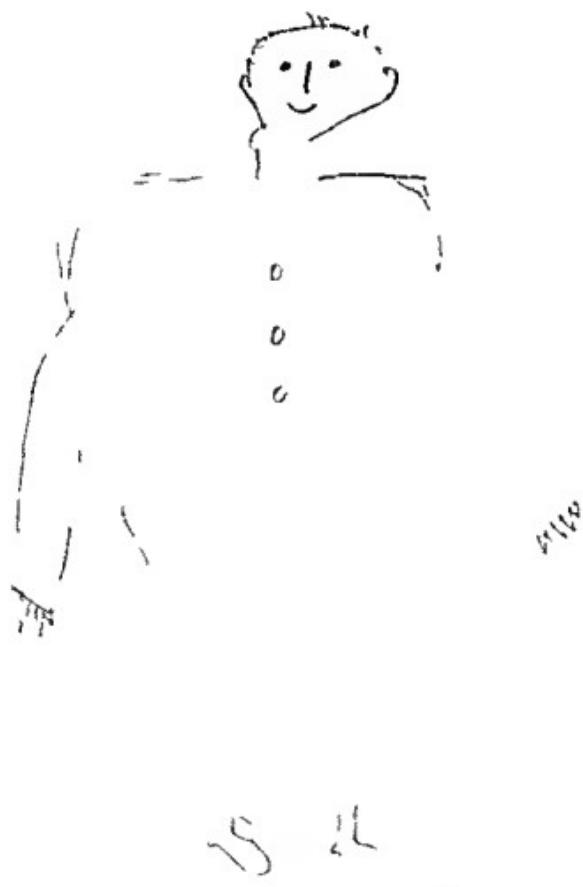
**DICK—DRAW-A-PERSON****RE EVALUATION—1959**

## PREDICTION OF OVERI BEHAVIOR



## DICK—DRAW-A-PERSON

RE-EVALUATION—1959



**TOM—DRAW-A-PERSON****RE-EVALUATION—1959**

# INDEX

## A

Adkins, M. V., 26

Affect denial, 28, 29

Affective response, 28, 40, 41, 87

Aggression, 11, 14, 19, 20, 25, 28, 37, 38, 41, 46, 52, 53, 54, 59, 66, 76

Anxiety, 29, 35, 47, 48, 51, 66, 75, 77, 81

Assertiveness (*see also Aggression*), 35, 38, 39, 41, 44, 48, 54, 58, 59, 85, 86, 89

Atkinson, J. W., 19, 26

## B

Bender Gestalt test, 30, 55, 81, 150-165

original, 34, 35, 36, 39

original recall, 39, 43, 48

retest, 41, 42, 48, 53

sex, 40, 44, 45, 47, 49, 50, 52, 53, 54

test protocols, 150-165

## C

Carr, A. C., 3, 4, 5, 21, 23, 68, 78, 84

Clark, R. A., 19, 26

Cobb, E. A., 26

Control, 28, 37, 38, 39, 42, 44, 46, 49, 59, 60, 63, 64, 65, 74, 84

## D

Daily, C. A., 42

Dependency, 10, 28, 86

Developmental histories of the twins, 68-77

Dick, 69, 73

Tom, 73, 77

Draw-a-Person test, 34, 166, 173

test protocols, 166, 173

## E

Emotional impulses, 28, 51, 57, 58, 59

Emotional responsiveness, 27, 57, 87, 88

## F

Farley, J., 29

Father relationship, 21, 27, 28, 29, 69, 73, 74, 76, 90

Iske, D. W., 43

Forer, B., 3, 6, 8, 15, 80, 81, 82, 84, 85, 86, 87, 88

## G

Getzels, J. W., 14, 15

Goldberg, L., 42

## H

Hansmann, E., 14, 15

Henry, W., 3, 18, 29, 80, 82, 83, 84, 85, 86, 87, 88, 89

Heterosexuality, 4, 16, 22, 23, 26, 27, 38, 40, 47, 48, 54, 61, 62, 63, 67, 68, 69, 70, 73, 75, 76, 77, 78, 82, 83, 84, 88, 90, 91

Bender Gestalt test, 58, 40, 47, 48, 54

Rorschach test, 61, 62, 63, 67

Sentence Completion Test, 16

Thematic Apperception Test, 22, 23, 26, 27

Holt, R. R., 42

Homosexuality, 3, 4, 9, 10, 14, 16, 22, 23, 26, 27, 38, 39, 40, 44, 47, 48, 50, 51, 54,

60, 61, 62, 63, 65, 67, 68, 69, 71, 72, 73, 74, 75, 76, 82, 83, 84, 87, 88, 90, 91

Bender Gestalt test, 37, 39, 40, 44, 47, 48, 50, 51, 54

Rorschach test, 60, 61, 62, 63, 65, 67

Sentence Completion Test, 9, 10, 14, 16

Thematic Apperception Test, 22, 23, 26, 27

Hooker, F., 3, 5, 15, 23, 68, 78, 91

Hostility, *see Aggression, Assertiveness*

Hutt, M. L., 3, 30, 34, 42, 51, 80, 81, 83, 84

I

Identical twins, 4, 5, 22, 59, 68, 77, 78

developmental histories 68, 77

Dick, 69, 73

Tom, 73, 77

Impulsivity, 35, 36, 57, 15, 16, 50

Inner tension, 37, 42, 46, 19, 51, 52

Intrapsychic conflict, 14, 16, 39, 40

**K**

- Kagan J 20 25  
 Kallman F J 78, 91  
 Kelly, E I 43  
 Kolb L 4

**L**

- Lesser G S 20 25  
 Lindzey G 19 26  
 Little K B 79 91  
 Luborsky L 42  
 Lowell E I 19 26

**M**

- McClelland D C 19 26  
 Mechi P F 43  
 Mesnikoff A 4  
 Miller R B 26  
 Mother relationship 21 25 27 28 29 48  
     69 70 73 74 75 76 87 90  
 Murray H A 19 26 82  
 Mussen P H 20 26

**N**

- Naylor H K 20 26

**P**

- Piotrowski Z A 3 56 61 80 82 83 84  
     85 86 87 88 89  
 Prediction 1 3 6 7 8 9 10 14 16 18 19  
     21 22 23 25 29 30 31 32 33 34 36  
     78 79 80 81 82 83 88  
 conscious/unconscious 18 19 21 22 23  
     30 31 32 78 80 81 88  
 difficulty of 3 5 16 21 23 29 30 60  
     83 88  
 endogenous 7 8 10 16 21 79  
 exogenous 7  
 extrinsic 6 7 8 9 11 80  
 integrative 6  
 intrinsic 7 9 11 79 80  
 overt covert see above unconscious/unconscious

**R**

- Ralferty J E 15  
 Ramer, J 4, 73  
 Rohde A R 9 15  
 Rorschach test 56 67 83 84, 86 87, 88, 89,  
     116 149  
 animal movement 59  
 color 56, 57  
 d 65  
 F+, %, 59  
 homosexual signs 61, 62  
 human movement 58 62 66  
 shading 63  
 test protocols 116 149  
 verbal content 60  
 whole responses 59 61  
 Rotter J B 9 15

**S**

- Sanford R N 19 20 26  
 Schachtitz F 15  
 Sentence Completion Test 6 17, 80 83,  
     84 86 87 88 94 103  
 endogenous factors 7 8 10 11 16  
 exogenous factors 7  
 forms 10 80  
 intensity 10 80  
 need expression 10 11  
 predictive tasks 6 9 11 15 83  
 scoring 9 10 12 13  
 sex 11  
 situational determinants 9 11 11 15,  
     80  
 test protocols 91 105  
 threshold 9 10 11 14 80 81, 86  
 Sex 11 29 36 40 41 45 47 49 50 52, 53,  
     51 60 61 62 63 71 73 74 75 78, 80,  
     81 82 81

Shneidman E S 79 91

**T**

- test protocols 91 171  
 Bender Gestalt test 150 165  
 initial testing 150 171  
 re-evaluation 156 165  
 Dick 91 171  
 initial testing 91 99 106 109 116 128,  
     130 151 156 159 166 167  
 re-evaluation 100 101, 110 115 129  
     130 137 171